A STUDY TO ASSESS THE EFFECTIVENESS OF A SELF INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING LIFE STYLE MODIFICATION FOR MAINTAINING HEALTHY HEART AMONG CARDIAC PATIENTS IN SELECTED HOSPITAL AT MADURAI"

A DISSERTATION SUBMITTED TO THE TAMILNADUDR.M.G.R.MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING.

OCTOBER– 2016

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CERTIFICATE

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EXAMINERS

INTERNAL **EXTERNAL**

1. _____ **2._____**

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"The Lord Bless Thee out of Zion"
PSALMS 128:5

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CHAPTER-I

INTRODUCTION

INTRODUCTION

"To ensure good health eat lightly, breathe deeply live moderately, cultivate cheerfully and maintain interest in life"-Unknown

Everyone should lead a conscious life style that prevents diseases as, individual life style is central to the development of chronic diseases. Living healthy life style means taking responsibility for own health and well-being, it is the best step forward in our destiny and the advancement of human kind. Among the diseases CAD has become an epidemic and chronic increasing number of deaths among the younger age group affecting the productivity of economy.

"Health is defined as a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity". This definition of health highlights the importance of understanding health and disease burden within the personal, social and cultural context specific to the patient those who all are affected by CVD

A healthy lifestyle is a combination of healthy eating and regular exercise. Healthy balanced diet combined with regular physical activity helps to keep the heart healthy, as well as helping the body keep fit, maintain optimum body weight, improve energy utilization, and prevent the early on set of long term cardiac complications.

There is need to educate people and arose awareness of the importance of taking health in their hands.

CAD is an insidious progressive disease that results in narrowing or complete occlusion of coronary artery causing disruption of blood supply to the myocardium.

Permanent disruption of blood flow causes myocardial dysfunction, including sudden death.

CVD is diseases that are associated with atherosclerosis. These diseases occur more frequently in people who smoke, who have high blood pressure, who have high blood cholesterol (especially high LDL), who are overweight, who do not exercise, and/or who have diabetes.

India has the highest burden of acute coronary syndromes in the world. Several factors appear likely to have contributed to the acceleration of Coronary artery disease epidemic in India. In the recent times these are demographic transition to an older population as a result of increasing life expectancy, confluence of both conventional risk factors like hypertension, diabetes, hypercholestroleaemia, smoking etc owe their origin to growing urbanization and western "acculturation" amongst Indians and Non-conventional risk factors like hyperinsulinemia, insulin resistance, lipoprotein-A are determined genes. The gravity of this situation is emphasized by a recent projection from the WHO and the Indian council of medical research (ICMR) which predicts that India will be the MI capital of the world 2020.

An Indian multicenter study that analyzed data from 4081 subjects reported that Acute Coronary Syndromes occurred at mean age of 56.6±12 yrs in men and 61.8±10 yrs in females.

In India incidence of Coronary Heart Disease is more in metropolitan cities. Because of high mental stress and less physical work, the incidence of Coronary Heart Disease is more prevalent in high socio-economic groups. Considering the different studies conducted in urban and rural population in India an average figure of 25/1000

population in the age group of 40 years and above appears the more common age group.

Every year approximately 1.5 million American have heart attack. Myocardial Infarction is the leading cause, an estimated 5,00,000 deaths occur each year. About 2,40,000 women die of Myocardial Infarction. Approximately 2,50,000 people die of before they reach the hospital. Studies indicate that half of all heart attack victims wait more than 2 hrs before getting help.

People with ancestry in the countries of India n sub-continents (south-Asian) comparing more than one fifth of the global population are highly susceptible to CVD.

It is documented that in India 50l% of deaths occurring due to Coronary Heart Disease are preventable. Adopting a healthy lifestyle can prevent the disease of heart and arteries. Nurses as health professionals can play an important role in creating awareness among public about heart diseases and their prevention

The WHO has drawn the attention of the facts Coronary Heart disease is our Modern 'Epidemic' that it is a disease that affects proper not an unavailable attribute of aging, males are affected more than females. Coronary heart disease (CHD) is still most frequent single cause of death among men under 65 years. The Coronary Heart Disease(CHD) is due to atherosclerotic changes, cigarette smoking cholesterol content diet, lack of exercise and uncontrolled hypertension cause these changes.

CAD striking at the younger age was seen in an another study dine at Tirupathi prevalence of CAD and coronary risk factors were seen in age group of

42.50±9.41(male), 38.89±11.22(females) , with overall incidence of 12.63 in the sampled population.

Cardiovascular Disease incidence rises in a perceptible and surprisingly predictable fashion with the increasing rates of risk factors and change in behavior patterns implying the urgent need for preventive strategies at the Mass across the country.

Increasing rates of obesity has lead on to higher rates of type II diabetes mellitus and cardiovascular diseases. Abdominal obesity is an important risk factor for cardiovascular diseases and the prevalence is high in South Asians. An increase in waste-hip-ratio has been noted to be an important predictor of stroke and cardiovascular disease.

Obesity is now a true epidemic and public health crisis that both clinicians and patients must face. Normal body weight is defined as a Body Mass Index (BMI). Body Mass Index is a measure of body fat based on height and weight that applies to both adult men and women. It is calculated as weight in kilograms divided by the height in meters squared

NEED FOR THE STUDY

The heart is one of the few truly vital organs. Some people may focus their attention on their heart beat and the worry when it skips a beat, other people fear the changes a disease will make on their daily lives and whether they will survive. As pointed out in Roy's Adaptation Self Concept Model, need states may arise from somatic sensation.

Cardiovascular disease is becoming a chronic, major health problem and an epidemic in India; has the highest burden of acute coronary syndromes in the world.

The estimated prevalence of CAD in India is currently about 3% in rural areas and 8% to 10% in urban zones. The CHD rate in India is expected to rise in parallel with the increase in life expectancy secondary to increases in per capita income and declining infant mortality rate (IMR). The average life expectancy has increased from 41 years in 1951 to 61 years in 1991 and is projected to reach 72 years by 2030, which could lead to large increases in CHD prevalence. CAD is becoming chronic causing increasing number of deaths among the younger age group affecting the productivity of economy.

In a study "Knowledge if modifiable risk factors of Coronary Atherosclerotic Heart Disease (CASHD) among a sample in India", reported that several factors have contributed to the acceleration of Coronary artery disease epidemic in India, in the recent times these are demographic transition to an older population as a result of increasing life expectancy, confluence of both conventional risk factors like hypertension, diabetes, hypercholestroleaemia, smoking etc owe their origin to growing urbanization and western "acculturation" amongst Indians and Non-conventional risk factors like hyperinsulinemia, insulin resistance, lipoprotein-A are determined genes. The gravity of this situation is emphasized by a recent projection from the WHO and the Indian council of medical research (ICMR) which predicts that India will be the MI capital of the world 2020.

Tremendous loss of productive working years due to premature CVD deaths, and estimated 9.2 million productive working years of life were lost in Indian in 2000, and with an expected increase to 17.9 million years in 2030. Survival in these great numbers should prompt the health care systems to re-evaluate its role in facilitating optimal care of patients with CVD. Education measures need to be reinforced and clients need to be informed of their propensity to develop premature CAD and its adverse consequences.

The dramatic decline in the morbidity and mortality caused by Coronary Heart Disease in some countries has been substantial substained and real. This notable public health achievement is due to change in the lifestyle; eg-dietary patterns, altering mass sedentary phenomenon and encouraging physical activity, stopping/reducing smoking, moderation in alcohol and salt consumption, avoiding undue stress and practicing proper relation, yoga, meditation and other measures like control of Hypertension, diabetes and serum lipids. A number of known major precursors of this diseases are modifiable lifestyles to promote the risk factor must be identified.

On the occasion of World Health Day, 7th April 1992, the theme of which was "Heart beat – the Rhythm of heart", Dr.Hiroshi Nakajima said in his message that disease of the heart and arteries account for an estimated 12 million (1.2 crores) annually worldwide.

According to WHO, some 3,70,000 new cases of Rheumatic fever and 1,50,000 recurrence take place each year, which leads to 3,00,000 new cases of Rheumatic Heart Disease.

Since the investigator found from their clinical experience, there are more number of cases with cardiac illness. The main cause of these cardiac illness are excessive intake of fatty and oily foods, increases plasma lipids and cholesterol level, excessive intake of non-vegetarian diet, over weight, smoking, alcoholism, lack of physical exercise, genetic factors, stress etc. these patients lack knowledge regarding their illness, though there are various studies conducted on cardiac patients.

Coronary Heart Disease (CHD) is a multifactorial disease and the exact cause still remains the mytery despite some lingering uncertainalities and incomplete knowledge we have enough information to act effectively. CHD can be prevented by identifying known risk factors and modifying them and by changing lifestyles patterns. We must prevent entrenchment of the enthusiasm of prevention minded physicians. Medical practices now attempts to modify lifestyle of coronary candidates to improve their change of avoid heart attacks.

Efforts shall be made to identify traditional health related behavour which shall be encourages, e.g.,the traditional low-sodium 'salt diet' the general message to the community at large will aim at preventing the unhealthy behavior pattern and spread of risk factors in the hospital and community.

Recognition of hypercholesterolemia as a risk factor in Coronary Heart Disease (CHD) has lead to development of drugs that reduce cholesterol levels. These drugs that reduce cholesterol level. These drugs have been used in well controlled studies of patients with high cholesterol levels caused primarily by evaluated level of low-density lipoprotein (LDL). The results of these trials indicate the Coronary Heart Disease (CHD) mortality is reduced when hyper cholesterol emic patients are treated with moderate doses of hypolipidamic drugs.

Clearly an all out increase in efforts to implement clinically and cost-effective risk reduction strategies and improve the quality of life in patients with /at high risk of Coronary Heart Disease (CHD).

To conclude our country is witnessing remarkable advances in the management of Coronary Heart Disease (CHD) but there is paucity of efforts towards mass education, detection of disease, early intervention and follow-up to fore still them. As a keen interest and inspiration gained by previous studies, I would like to conduct the study to assess patients for making them to adopt and improve a healthy behavior towards life style modification aspects for maintaining healthy heart. This study also helps the cardiac patients to prevent complication

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STATEMENT OF THE PROBLEM:

"A study to assess the effectiveness of a Self Instructional Module on knowledge regarding Life Style Modification for maintaining healthy heart among cardiac patients in selected hospital at Madurai".

OBJECTIVES

1. To assess the level of knowledge regarding the life style modification for maintaining healthy heart among cardiac patients.
2. To develop and administer Self Instructional Module regarding the life style modification like, dietary modification & weight loss, Regular physical activity & stress management, and changing or modifying bad habits for maintaining healthy heart among cardiac patients.
3. To evaluate the effectiveness of the Self Instructional Module regarding the life style modification for maintaining healthy heart among cardiac patients.
4. To compare the pre-test and post-test knowledge score after the Self Instructional Module.
5. To find the association between knowledge regarding the life style modification for maintaining healthy heart among cardiac patients with selected demographic characteristics.
6. To find out the association between the mean differences of gain in knowledge regarding the lifestyle modification program

HYPOTHESIS

- H_1 – The mean post test knowledge score regarding the life style modification for maintaining healthy heart among cardiac patients will be significantly higher than the pre-test knowledge score.
- H_2 – There will be significant association between the mean pre-test knowledge score regarding the life style modification for maintaining healthy heart among the cardiac patients and their selected demographic variables.

OPERATIONAL DEFINITION

Assess:

It refers to evaluation of desired or intended outcome of the study.

(OR)

Measurement of knowledge of the cardiac patients.

Effectiveness:

Refers to a significant increase in the level of knowledge of the clients with Coronary artery disease regarding life style modification to maintain heart health, which is measured from: pre-test, Self Instructional Module and comparing the mean scores with the post-test scores.

Self Instructional Module:

It refers to the learning material prepared in Tamil and English language, by the researcher to provide information.

Knowledge:

It refers to correct responses from the participants regarding lifestyle modifications for maintaining healthy heart which will be measured by structured interview schedule & knowledge score.

Life style Modification:

It means the type of actions, which can be changed and undertaken to remain in the best possible conditions in their limits of Heart function.

Healthy heart:

It refers to strategies to be followed by individuals to lead healthy life style in order to maintain and promote heart health.

Cardiac patients:

It refers to an individual who is diagnosed with coronary artery disease such as, Angina pectoris and Myocardial infarction.

Coronary artery disease:

CAD is an insidious progressive disease that results in narrowing or complete occlusion of coronary artery causing disruption of blood supply to the myocardium.

ASSUMPTIONS

1. The clients who are suffering from cardiac diseases have a basic knowledge about Life style Modification Program.
2. The clients as adults will express their knowledge about Life Style Modification.

LIMITATIONS

1. The study is limited to the cardiac wards or ICUs or the selected hospitals.
2. Patients who are admitted to cardiac wards or ICUs with cardiac problem.
3. Assessment is limited only to the patients who are having myocardial infarction, angina pectoris.

DELIMITATIONS

1. This study is delimited to the patients with the CAD who are not willing to participate in the study.
2. Cardiac patients who all are not able to read & write English and Tamil.

PROJECTED OUTCOMES:

The projected outcome of the study includes,

- The effectiveness of self Instructional Module will bring knowledge regarding healthy Heart.
- The effectiveness of self Instructional Module will help to prevent the cardiac failures.
- It helps to improve their condition in day today life.

CONCEPTUAL FRAMEWORK OF THE STUDY

Concept is defined as a complex mental formulation of an object, property or an event that is derived from the individual's perception and experience.

Conceptualization is the process of forming ideas, which are utilized and forms conceptual frame work for development of research design. It helps the researcher to know what data need to be collected and gives direction to an entire research process.

Theories and conceptual models are the primary means of providing a conceptual context for a study. The aim of the study was to assess the Self Instructional Module on knowledge of cardiac patients regarding Life Style Modification.

Conceptual models can deal with interrelated concepts or abstracts that are assembled together in some rationale, scheme by virtue of their relevance to common theme.

The conceptual model selected for this study is based on "Penders health promotion model". This study designed to assess the knowledge regarding Life Style Modification for cardiac patients. The health promotion model proposed by Nola Pender was designed to be a complementary counterpart to model of health protection. Health promotion is directed at increasing a client level well being. The model focused on following three areas.

1. Individual characteristics and experiences
2. Behavior specific cognition and affect
3. Behavior outcome

Individual characteristics:

In this study individual characteristics refers to the demographic variables of the patients with CVD consisting of patients age, sex, occupation, education, religion, monthly income, type of family, type of diet, duration of illness and medical diagnosis.

Behavior specific cognition and affect:

In this study it refers to the existing knowledge regarding Life Style Modification for cardiac patients. Investigator used structured questionnaire to assess the knowledge on patients regarding Life Style Modification by using interview schedule the investigator identified the levels of knowledge as inadequate, moderate and adequate based on the findings.

To all patients Self Instructional Module on Life Style Modification was administered.

Behavioral outcome:

It helps to identify and assess outcomes intended and unintended short term and long term, both to help investigator and keep focused on achieving important out comes and ultimately to help the broader group of users cause the efforts of success in meeting in targeted needs.

In the present study behavioral outcome refers to the comparison of pre-test and post-test knowledge scores of patients regarding Life Style Modification.

Improvement of knowledge of patients regarding Life Style Modification is done by statistical computation, in this study effectiveness of Self Instructional Module needs reinforcement by the health sector to promote adequate knowledge of patients regarding Life Style Modification.

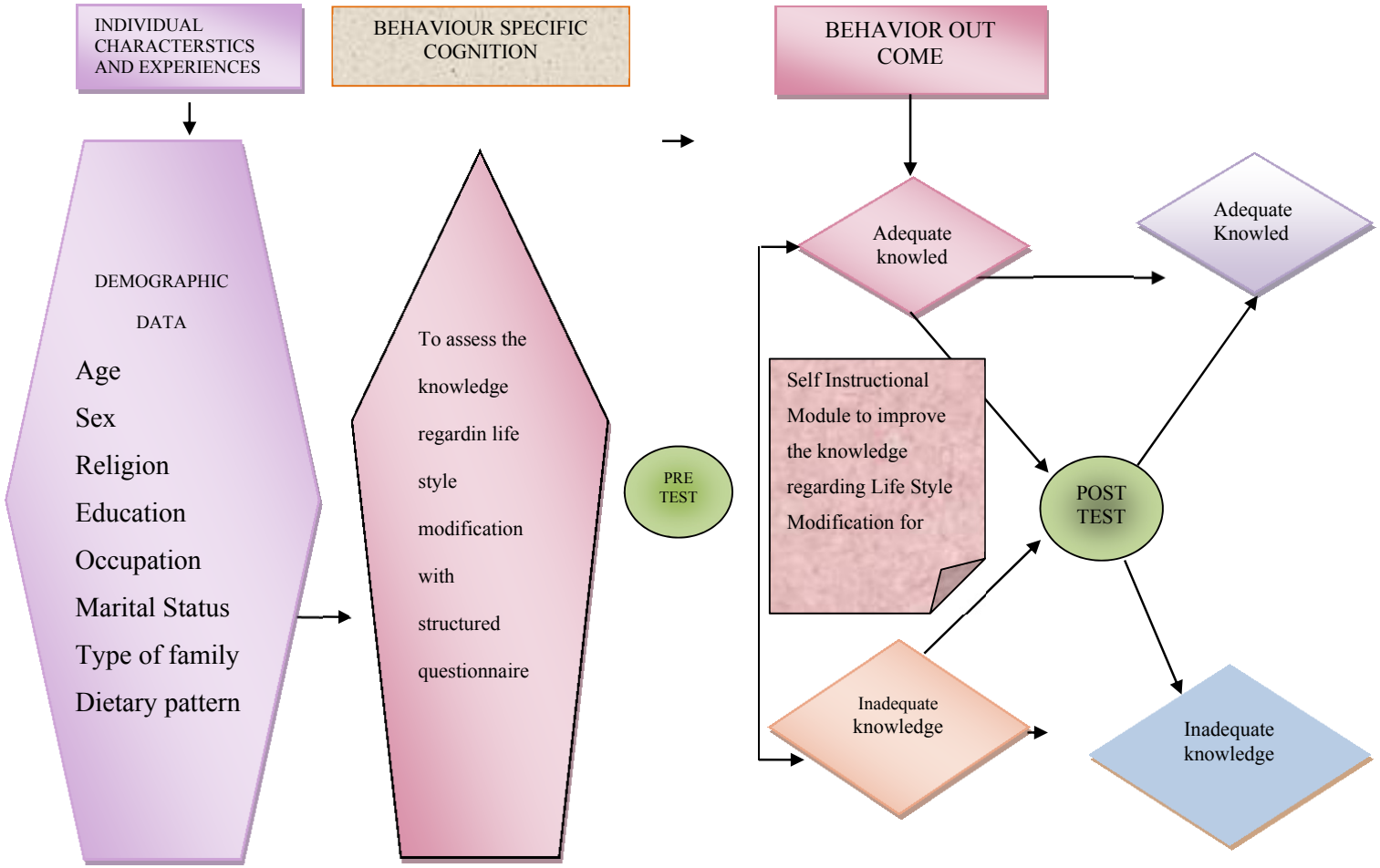


Fig. 1 MODIFIED HEALTH PROMOTION MODEL NOLA J. PENDER

CHAPTER-II

REVIEW OF LITERATURE

CHAPTER-II

REVIEW OF LITERATURE

Literature review is a key in the research process, the task of reviewing involves the identification, selection of critical analysis and reporting of existing information on topic of interest. The main goal literature review is to develop a strong base to carry out research and non-research scholarly activities in education and to improve knowledge upper respiratory tract infection among the mothers of toddler. Literature review can serve the number of important functions in the research process and they also play critical role for nurse seeking to develop evidence based practical.

A review of related literature gives an insight of various aspects related to the study. It enables to study various problems encountered during the course of study and helps in directing ways to increase the effectiveness of data analysis and interpretation.

The investigator to elicit factual information about lifestyle of cardiac patients did an extensive review of literature. The related literature is organized and presented under the following headings:- Literature related to:

- ❖ Knowledge and incidence of coronary artery disease
- ❖ Knowledge and risk factor of coronary artery disease

A) Diet

B) Habits

C) Stress

D) Exercise

The purpose of study is to assess the knowledge of selected cardiac patients regarding lifestyle modifications which include mainly

- ✓ Diet (Cholesterol & salt content)
- ✓ Activities of daily living
- ✓ Weight reduction
- ✓ Nature of work, rest and sleep
- ✓ Smoking, alcoholism and sexual activities
- ✓ Stress
- ✓ Prevention of complications
- ✓ Benefits

The review of related literature gives an insight of various aspects related to study. It enables to study various problems encountered during the course of study and helps by directing ways to increase the effectiveness of data analysis and interpretation. The related literature review is alone from Published Journals, Unpublished thesis and Magazine, Books and News Papers.

Knowledge and Incidence of Coronary Artery Disease

Bainey R et al (2009) reviewed the evidence supporting the increased risk of south Asians living in North America with CAD. The collective evidence suggests that other risk factors beside the conventional may be involved in the increased susceptibility of south Asians to CAD. In addition to upward trend in cardiovascular mortality the prevalence of AD among south Asian between the age of 35 and 64 years has increased to about 10%. Targeting all the risk factors as an early stage might prevent CAD progression and there by improve outcome in the high risk population. It is mentioned in the review that eight factors are causally linked i.e., tobacco consumption, elevated LDL, High BP, elevated glucose, physical inactivity, obesity

and diet and six factors are associates i.e., socioeconomic status, prothrombotic factors, markers of inflammation, elevated homocystine, elevated lipoprotein (a) and psychological factors. Interventions to promote healthy weight control should be pertinent to and well-received by school-going youth in India. Healthy weight control practices need to be explicitly encouraged and unhealthy practices reduced.

Xavier.D et al (2008) conducted a prospective registry study (CREATE) in India to document the characteristics, treatment and outcomes of patients with acute coronary syndromes, the recorded range of clinical outcomes and all cause mortality at 30 days found that mean age of patient was 57.5 and patients were form lower middle class (52%),and poor (19.6%), diabetes 23.7%, hypertension 42.2% and 40.2% were smokers indicating the higher rate of coronary artery diseases in Indians attributable to life style changes. The study concluded that most of the patients are poor, less likely to get evidence – based treatments, and greater 30 – day mortality; reduction in delays in access to hospital and provision of affordable treatments could reduce morbidity.

Ramraj et al (2008) conducted a review on Indian poverty and cardiovascular disease. The estimated prevalence of CAD in India is currently about 3% in rural areas and 8% to 10% in urban zones. Lack of public awareness and perception among policy makers that CAD is largely problem of the urban rich is a thereat to tackle the epidemic in India. The review concludes that cost-effective interventions to reduce risk of CAD will help in reducing the looming threat of an escalating epidemic of CVD.

Abinav et al (2006) reviewed on the burden of cardiovascular disease in Indian Subcontinent, found that in 2003; the prevalence of CHD in India was estimated to be 3-4% in rural areas and 8-10% in urban areas with total of 29.8 million was affected according to population based cross sectional surveys. The study recommends that Life style structured programs to promote healthy dietary patterns and physical activity must be developed to combat the deleterious effects of urbanization. In addition, cultural norms that hinder the adoption of healthy lifestyles should be appreciated so that novel approaches to encourage healthy lifestyles can be developed and implemented in a culturally sensitive manner.

Rajeev Gupta et, al (2002) this study aimed to determine the prevalence of certain socio-economic factors and biological coronary risk factors in urban communities and to compare the findings found in the Hindus and Muslims. They employed a cross-sectional survey design and stratified random sampling technique consisting of 1364 males and 776 females. Among Males there were 685 Hindus and 91 Muslims. The study concluded with results as the prevalence of Coronary Heart Disease (CHD) is significantly more in Hindu males as compared to that of Muslims and is associated with a greater prevalence of Diabetes and Hypertension.

Knowledge and Risk Factors of Coronary Artery Disease

Omar Saeed, Vineet Gupta et al (2009) conducted cross sectional study at (AIIMS) Delhi to assess knowledge of modifiable risk factors of Coronary Atherosclerotic heart disease (CASHD) among a sample in India. Participants (n=217) was given standardized questionnaires to assess their knowledge. The risk factor specially included were smoking, hypertension, elevated cholesterol levels, diabetes mellitus and obesity. Identifying 3 or less risk factors was regarded as a poor knowledge level,

whereas identifying 4 or more risk factors was regarded as a good knowledge level. The mean age of participants was 35, of which 82% were males. Overall, a majority of participants lacked the predefined food level of knowledge pertaining to modifiable risk factors of CASHD. Specifically, only 41.1% of the participants had a "good level" of knowledge versus 58.6% showing a "Poor knowledge". The study suggests that public awareness of risk factors for CASHD is essential. Educational interventions are needed to make the Indian public aware of modifiable risk factors for CASHD and specifically should target individuals who do not exercise, currently smoke, and have less formal education to be optimally effective as a preventive measure.

Engeibrech et al (dec 2008) studied the effect of structured and unstructured cardiac teaching on knowledge of myocardial infarction patients, convenience two group (n=30). A before-and-after experimental design was used. Pretest and Posttest scores on the Coronary Heart Disease Teaching Evaluation Form (CHDTEF) were utilized to determine the significance. The patients in the control group received a non-structured teaching done by staff nurses, physicians, and other health professionals. The experimental group received a structured teaching program provided by the investigator through the process of that included educational needs assessment, contracting with the patients about teaching and learning objectives; providing information 9booklets, audio-visual aids, didactic interaction; obtaining feed back; correcting any errors, gaps in knowledge and repeating information was needed; and evaluating progress. The structured program consisted of five 20-minute teaching sessions implemented over five consecutive days at the patient's bedside in the CCU and the Progressive Coronary Unit (PUC). All teaching sessions were completed within 24 to 48 hours prior to the admission of posttest. The findings revealed a

statistically significant higher degree of knowledge for the patients who received a structured, individualized cardiac teaching program. The study suggests Clinical Implication: a planned, systemic, objective-oriented and individualized presentation should be provided to all MI patients.

Perkins-Porras L et, al (2006) conducted an interview and questionnaire study of 171 acute coronary syndrome patients assessed within 5 days of admission at three hospitals in the London area. The most common attributions were to stress, smoking, high blood pressure, chance or bad luck, and heredity. Attributions were strongly associated with risk factors: 90% of smokers attributed heart disease to smoking, compared with 0% never smokers; 90.4% of hypertensive's attributed heart disease to high blood pressure, 72.2% of patients with a positive family history to heredity, 85% of obese patients to being overweight, and 49% of sedentary patients to lack of exercise. Finally attributions to stress were related both to current mood and reports of recent life stress. There were few sex differences, but higher socio-economic status patients were more likely to attribute heart disease to heredity and genetic factors.

Patil SS et, al (2004) conducted a prospective case-control study to determine the risk factors for acute myocardial infarction in a rural population of central India. The sample size is 111 consecutive patients with a first episode of acute myocardial infarction and 222 age- and sex-matched controls. This study compared the demographics, anthropometric measures, lipids, blood glucose, smoking and other lifestyle factors among cases and controls to identify the risk factors independently associated with acute myocardial infarction. Elevated fasting blood glucose, abnormal waist-hip ratio and income were independently associated with the first episode of acute myocardial infarction and also compared the abnormal triglycerides and current

smoking were risk factors but were not statistically significant. Educational importance needed for reduce the blood glucose levels and truncal obesity for controlling the burden of coronary artery disease in rural Indians.

Yusuf Salim et, al (2000) Difference in Risk factors, Atherosclerosis and Cardiovascular Disease (CVD) between Ethnic groups in Canada : "The study of Health Assessment and Risk in Ethnic Groups (SHARE)" states that Cardiovascular Disease (CVD) rates vary greatly between Ethnic groups in Canada. To establish whether this variation can be explained by differences in disease risk factors and, they undertook a population-based study of 3 Ethnic groups in Cannada ; South-Asian, Chinnese and Europeans.

A total of 985 participants were recruited from 3 cities (Hamilton, Toronto & Edmonton Subclinical Atherosclerosis) by stratified random sampling. Clinical Cardiovascular Disease (CVD) was defined by history of electro-cardio graphic findings. Carotid Atherosclerosis was measured with B-mode ultra-sonography. Conventional (Smoking, Hypertension, Diabetes, Raised cholesterol) and novel risk factors (makes of a prothrombic stable) were measured. Within each ethnic group and overall, the degree of carotid atherosclerosis was associated with a higher prevalence of Cardiovascular Disease (CVD).

Baberg HTet, al (2000) reviewed the Knowledge of patients on cardiovascular disease risk factors was generally low: One out of 5 did not know about the consequences of obesity, high blood cholesterol or smoking on the coronary vessels. Over 30% did not name hypertension. Only 1 out of 3 patients mentioned diabetes mellitus as a risk factor. There was no change in the knowledge during the hospital stay despite a standardized and intensive information program. The results of the

second survey on the day of discharge were equal to the results of the admission day. Hospital stays in the past had no influence on the knowledge. Patients with a diagnosed coronary heart disease had the same results in the survey as patients with other diseases. The presence of risk factors had hardly any influence on the knowledge of these patients. The result of this study emphasizes the need for better health information for patients. The repetitive information on health related issues during inpatient treatment does not seem to have a positive effect on patients' knowledge. Therefore other ways of health education have to be introduced and evaluated in acute care.

Gariballa SE, Peet SM, et, al (1996) assessed the knowledge of 28 stroke patients on the nature, consequences, treatment and risk factors of stroke and ischemic heart disease was examined using a questionnaire and compared with that of 26 patients with ischemic heart disease and 41 controls without evidence of vascular disease. Information was also collected on the patients' willingness to change their life-style, the information and advice they had received and their desire for more information. The collective evidence found that about half of the elderly stroke and heart disease patients had a reasonable knowledge of the condition and its related risk factors. Only eight (14%) patients remembered receiving information and advice in relation to their condition during their hospital stay compared with one (2%) control. Finally this review concludes a significant difference between the number of stroke and heart disease patients who wanted to know more about their condition compared with the control group (32 vs 14; $p = 0.03$). The study suggests a quarter of the patients and half of the controls knew that fruit and vegetables were good for you and excessive fat and alcohol were less inductive to good health. Most patients with a risk factor were willing to exercise more, stop smoking, cut down on their drinking, or lose weight.

These results suggest that elderly hospital patients have a reasonable basic knowledge about vascular diseases, but that a significant number want to know more and would be willing to change their life-style.

Pais P et, al (1996) a case-control studies among South Asians in Bangalore, India to assess their relative importance of risk factors for IHD. Participants are Indian patients with 1st acute MI(200) and 200 age and sex matched controls. The risk factors for IHD: diet, smoking, alcohol use, socioeconomic status, waist to hip ratio (WHR), blood glucose, serum insulin, oral glucose tolerance test, and lipid profile. The findings are AMI was current smoking of cigarettes or beedis (a local form of tobacco), with individuals who currently smoked 10 or more per day. Compared with individuals with no risk factors, individuals with multiple risk factors had greatly increased risk of AMI. The impact of vegetarianism was closely correlated with blood glucose and WHR. The study recommends providing or promoting smoking cessation, treatment of hypertension, and reduction in blood glucose and central obesity (perhaps through dietary modification) are important in preventing IHD in Asian Indians.

Literature related life style modification program:

Kozier, Erb, Blasis & Wilkinson, (1995) Lifestyle is defined as the values and behaviors adopted by a person in daily life, modifying a person's lifestyle to is to meet new, changing or different conditions.

This study aims to highlight knowledge of LSM among cardiac patients with a focus on providing / enhancing knowledge through self instructional module. Knowledge in LSM is assessed through questionnaire; further improvement in knowledge is assessed by a post test using the same questionnaire.

Life style modification is a key component in CAD patients for reducing progression of disease. Recently life style modification is being reviewed in India to form the basis of primordial prevention in CAD disease progression.

Jeannette Larsen & Ann-Dorthe Olsen Zwisler Health behaviour is often used synonymously with lifestyle, and aspects of lifestyle such as smoking, dietary and exercise habits are strongly related to health, life expectancy and heart disease.
Lifestyle intervention, comprising systematic education in techniques to change health behavior, is essential for implementing changes in lifestyle and is an important element in preventing heart disease and cardiac rehabilitation.

Daubenmier JJ et, al (2007) The Cardiac Rehabilitation Unit intervenes in patients' lifestyles to motivate and support them in changing their lifestyles long term to improve their heart health. This intervention is based on knowledge about the links between heart disease and smoking, dietary and exercise habits.

The purpose is to evaluate the additive and interactive effects of 3-month changes in health behaviors (dietary fat intake, exercise, and stress management) on 3-month changes in coronary risk and psychosocial factors among 869 nonsmoking CHD patients (34% female) enrolled in the health insurance-based Multisite Cardiac Lifestyle Intervention Program. In this study multiple regression analyses evaluated changes in dietary fat intake and hours per week of exercise and stress management as predictors of changes in coronary risk and psychosocial factors. Significant overall improvement in coronary risk was observed. Reductions in dietary fat intake predicted reductions in weight, total cholesterol, low-density lipoprotein cholesterol, and interacted with increased exercise to predict reductions in perceived stress. Increases

in exercise predicted improvements in total cholesterol and exercise capacity (for women). Increased stress management was related to reductions in weight, total cholesterol/high-density lipoprotein cholesterol (for men), triglycerides, hemoglobin A1c (in patients with diabetes), and hostility. Finally this study suggests improvements in dietary fat intake, exercise, and stress management were individually, additively and interactively related to coronary risk and psychosocial factors, suggesting that multi-component programs focusing on diet, exercise, and stress management may benefit patients with CHD.

Aounallah Skhiri H et, al (2005) review the degree of awareness and practices of patients with cardiovascular disease .During October 2002-February 2003, we conducted a CAP study (Knowledge, attitudes, behaviors) at some outpatient clinic visit of Tunis District. Using a standardized questionnaire, 443 patients have been interviewed their educational level of risk factors of CVD. The collective findings suggested 66.9% of men have quit tobacco smoking and 19.5% still smoking 41.3% of patients have some difficulties to change their lifestyle. During the last year, majority of patients has had checked their blood pressure (98%), glycaemia (94%) and cholesterolemia (94%). Most of patients are aware that healthy lifestyle can be important in preventing heart attacks and stroke and that control of blood pressure, cholesterolemia and glycaemia reduce recurrence of these attacks once they happened.

This study facing the crucial question on lifestyle change and enhancing patient's responsibility in their own health promotion.

Steptoe A, Kerry S et, al (2001) This study assessed stages of change in fat intake, physical activity, and cigarette smoking during a randomized controlled trial of behavioral counseling. A total of 883 patients were selected for the presence of 1 or more of the following risk factors: cigarette smoking, high cholesterol, or a combination of a high body mass index and low physical activity. Stage of change (precontemplation, contemplation, preparation, and action/maintenance) was assessed at baseline and after 4 and 12 months. The odds of moving to action/maintenance for behavioral intervention vs control patients at 4 months were 2.15 (95% confidence interval [CI] = 1.30, 3.56) for fat reduction, 1.89 (95% CI = 1.07, 3.36) for increased physical activity, and 1.77 (95% CI = 0.76, 4.14) for smoking cessation. The likelihood of achieving action/maintenance was related to baseline stage for all 3 behaviors.

This study conclusion is to provide brief behavioral counseling for encouraging healthy lifestyles among patients in primary care at raised risk of cardiovascular disease.

A.DIET

Stigler MH et, al (2011) cross-sectional study of the microeconomic impact of cardiovascular disease hospitalization in four low- and middle-income countries (mainly in India). The aim of this study was to describe specific weight-related concerns among school-going youth in Delhi, India and to assess the prevalence of weight control behaviors, including healthy and unhealthy ones. Half of the overweight or obese students misclassified their weight status, while about 1 in 10 non-overweight youth did the same. This study interventions are to promote healthy weight control should be pertinent to and well-received by school-going youth in

India. Healthy weight control practices need to be explicitly encouraged and unhealthy practices reduced.

Gupta R et, al (2006) Correlation of regional cardiovascular disease mortality in India with lifestyle and nutritional factors. Mortality data were obtained from the Registrar General of India. In 1998 the annual death rate for India was 840/100,000 population. Cardiovascular diseases contribute to 27% of these deaths and its crude mortality rate was 227/100,000. Major differences in cardiovascular disease mortality rates in different Indian states were reported varying from 75-100 in sub-Himalayan states of Nagaland, Meghalaya, Himachal Pradesh and Sikkim to a high of 360-430 in Andhra Pradesh, Tamil Nadu, Punjab and Goa.

Udipi SA et, al (2006) Variations in fat and fatty acid intakes of adult males from three regions of India. Participants (n=25) was given to assess their dietary Fat and fatty acid intakes of healthy adult urban males from Ghaziabad, U.P.; Goa and Kolkata, W. Bengal. Total fat intakes ranged from 26.9 g/day to 163.2g/ day. Percent subjects having intakes above the desirable level were 72% in Kolkata, 36% in Ghaziabad, U.P. and only 10% in Goa. This survey highlights the need for limiting fat intakes and modifying diets to provide fatty acids in desirable ratios.

Consoli SM et, al (2004) the study to assess the individual health behavior, Population consisted of 59.7% males and 40.3% females. An internal HLC (Health Locus Control) was testifying an appropriate level of knowledge. This study recognized that by survey fewer have mis-conceptions about cholesterol and hypercholesterolemia, for ex: overweight individuals are more prone to have cholesterol problems or too much cholesterol may lead to cancer. This study also associated with a closer identification between cholesterol and modem lifestyle, with

the belief that the best way of lowering cholesterol is to diet. Finally, internal HLC subjects put forward less excuses for not to comply with dietary constraints. The results should encourage physicians to take into account the HLC of their hyper-cholesterolemic patients to pass personally tailored educational messages and to motivate them to take responsibility for their own health.

Sexena .S.et.al, (2001) states that the three independent and modifiable risk factors have perceived particular attention namely Cigarette smoking, Hyperlipidaemia and Hypertension with the available evidence linking these as casual factors in the factors for heart disease over which individuals have any control. They are partly amenable to lifestyle modification and counseling etc, but their ultimate control study requires pharmacological intervention. Diseases of multi-factorial origin the most important contributors perhaps being the change in the lifestyle accompanying industrialization and urbanization along with a high intake of saturated fats and sedentary life style.

Gambhir- D.S. et, al (2000) in his study of "Homocysteine and Coronary Heart Disease" indicated significant increased risk for those patients with high homocysteine levels. A study of 21,000 men who were followed for an average of 87 years. The study significantly showed higher mean homocysteine level 229 men who died of Ischemic Heart Disease (IHD), compared to 1126 aged matched controls. Multivariate relative risk of IHD mortality comparing the highest and lowest quartile of homocysteine was 2.9 (9.5% confidence interval, 2.0-4.1). Their studies concluded with prevention can be gained by efficient vitamins supplements to reduce elevated homocysteine levels in blood in reducing the risk of Cardiovascular Disease (CVD).

Manson JE, Spelsberg A et, al (1996) Coronary heart disease, the leading cause of death in women, is largely preventable. Lifestyle modifications (e.g., diet and exercise) are the cornerstone of primary and secondary prevention. Elevated levels of low-density lipoprotein cholesterol and triglycerides and low levels of high-density lipoprotein cholesterol are significant risk factors for coronary heart disease. Abundant data show inadequate utilization of lipid-lowering therapy in women. Even when women are given lipid-lowering agents, target levels often are not achieved.

Dhawan J, Bray CL (1997) reviewed the Asian Indians, coronary artery disease, and physical exercise. The objective of this study is to evaluate the relation of physical activity to different clinical and biochemical risk factors for coronary artery disease among people from different ethnic groups with angiographically proven coronary artery disease. The study subjects at British Asians, Indian Asians, and white people suffering from coronary artery disease, and their respective controls. The study Relate the physical activity level to serum insulin, glucose, cholesterol, triglycerides, and high density lipoproteins, systolic and diastolic blood pressures, and body mass index in patients and controls. 391 male patients were studied, of whom 260 (66.5%) were classified as sedentary. Mean serum insulin at 0, 1, and 2 hours after 75 g oral glucose was higher among the sedentary population. Mean body mass index was also higher among the sedentary population as were mean serum triglycerides and systolic and diastolic blood pressures. There was no difference in the mean serum cholesterol and high density lipoprotein between the two groups. British Asians were the most sedentary and Indian Asians the most physically active. Finally there are marked differences in the level of physical activity among the various ethnic groups in the United Kingdom. In each ethnic group, physical activity reduced mean serum insulin, body mass index, and serum triglycerides and had a favourable effect on systolic and

diastolic blood pressures. Promotion of physical activity could be of value for the Asian community in the United Kingdom.

Anne H. D. Fleming referred point for heart failure patients and their current knowledge and status related to nutritional issues. The nutritional knowledge questionnaire could continue to be a useful tool for demonstrating understanding of diet for patients diagnosed with congestive heart failure by assessing their comprehension level of nutrition. Future research addressing the essence of why patients with adequate sodium-restriction dietary knowledge are not applying this important information into their own lives and diets is warranted. The current study provides preliminary information upon which to build numerous other studies in the advancement of optimal care for the congestive heart failure patient.

The American Heart Association has proposed improving overall cardiovascular health by promoting 7 components of ideal cardiovascular health. In this study they assess the knowledge of these 7 components, including health behaviors (not smoking, regular exercise, and healthy diet) and health factors (ideal body mass index, cholesterol, blood pressure, and blood glucose) by performed a cross-sectional survey of patients at 4 primary care and 1 cardiology clinic. The survey measured demographic data, personal behaviors/health factors, cardiovascular disease history, and knowledge about these 7 components. The average respondent identified 4.9 components. The lowest recognition rates were for exercise (57%), fruit/vegetable consumption (58%), and diabetes (63%). In a multivariate model, knowledge of all 7 components was positively associated with high school education. In conclusion, just >1/3 of patients could identify all 7 components of ideal cardiovascular health. Educational efforts should target patients in low socioeconomic strata and focus on

improving knowledge about healthy diet and regular exercise. Although patients with diabetes were more likely than those without diabetes to recognize their risk, 1 in 5 were not aware that diabetes is a risk factor for cardiovascular disease.

B.HABITS

Roy A, Prabhakaran D et, al (2010) reviewed the Impact of alcohol on coronary heart disease in Indian men. The subjects for this study are employees and their family members aged 20-69 years in 10 medium-to-large industries from diverse sites in India, using a stratified random sampling technique. The Information on education, behavioral, clinical and biochemical risk factors of CHD and alcohol use was obtained through standardized instruments. Totally 4465 subjects were present or past alcohol users. The mean age of alcohol users and lifetime abstainers was 42.8+/-11.0 years and 42.8+/-11.1 years, respectively (p=0.90). This study suggested that Systolic blood pressure and diastolic blood pressure were significantly higher in alcohol users. Finally this study indicated an association in the reverse direction, suggesting possible harm of alcohol for coronary risk in Indian men. This relationship needs to be further examined in large, prospective study.

Wryobeck JM et, al (2007) review the Chest pain is the most frequent cocaine-related medical event for which patients seek treatment in inner-city emergency departments (EDs). Given that depression increases risk for poor substance use and cardiac outcomes, knowledge of correlates of depressive symptoms among these out-of-treatment cocaine users is crucial to developing interventions for these inner-city populations that frequently present to the ED. A total of 219 individuals presenting to an inner-city ED with chest pain and recent cocaine use were divided into 2 groups based on scoring positive (42%) for moderate-to-severe depression on the Patient

Health Questionnaire (PHQ-9). The depression symptoms group reported a significantly greater number of standard drinks per drinking occasion (7.1 versus 4.6) and a greater number of heavy drinking days (9 versus 5). A significant 3-way interaction effect found males and non-white females reporting a greater number of heavy drinking days were more likely to be in the depression symptoms group, whereas white females with a greater number of heavy drinking days were more likely to be in the non-depression symptoms group. Depression is clearly a problem among not-in-treatment cocaine users presenting to an inner-city ED; heavy drinking in concert with cocaine use increases the risk for depression, with important interactions by race and gender.

Debien B et, al (2006) concerning any socio-professional category, some addictive drugs like cocaine are responsible for many complications. The authors relate two case reports of young patients who suffered from cardiovascular accidents due to this drug. The first one was diagnosed with an ischemic stroke caused by carotid artery dissection and a leg distal vascular obliteration, the second one with a myocardial infarction with transient left ventricular dysfunction. Through these two case reports, the authors take stock of the patho-physiological and therapeutic knowledge of cardiovascular accidents after cocaine intake.

Rastogi T et, al (2005) Bidi and cigarette smoking and risk of acute myocardial infarction among males in urban India was estimated smoking among 309 men with incident MI in that 56% of the individuals with MI and 26% of controls were current smokers. Current smokers had a relative risk of 4.7 compared to never smokers. Relative risks for smoking more than 10 cigarettes or 10 bidis daily were 9.1 and 8.1

respectively. It is estimated that smoking may cause 53% (of MIs among urban males in India.

Joseph AM et, al (2005) The Reduction of Smoking in Cardiac Patients (ROSCAP). Study is a randomized controlled trial to test the effectiveness of a smoking reduction strategy to decrease tobacco-related harm, promote cessation, and improve biochemical and clinical indicators of toxin exposure among patients with heart disease. They analyzed baseline characteristics of patients enrolled for participation to investigate predictors of spontaneous smoking reduction prior to study enrollment. Past reducers were more likely to be males ($p=.009$) and had higher past peak smoking level ($p<.0001$) than non-reducers. Gender and number of heart disease diagnoses predicted the occurrence of spontaneous reduction and its extent. Age and a history of chronic obstructive pulmonary disease also predicted the extent of reduction. Cotinine and nicotine levels per cigarette per day were significantly higher among past spontaneous reducers than non-reducers. Spontaneous reduction is common among medically ill smokers. Past history of heart disease is a strong predictor of prior reduction. There is evidence of compensation among past spontaneous reducers.

Praveen.K. et,al (2002) studies on demographic patterns, risk factors and outcome in Acute Coronary Syndrome (ACS) are spare in India. The create registry recruited consecutive patients of Acute Coronary Syndrome (ACS) from 71 centers in India. Demographic and clinical data were recorded in hospitals at 30 days. Data on patients profile, risk factors, time patterns and mortality at 30 days of 4081 subjects were presented here.

There are 3092 Male (77%) and 989 Females (23%). Subjects less than 50 years comprised 29%. There were 1546 (37.8%) with unstable angina and 2535 (62.2%) with Acute Myocardial Infarction. Lower Middle Class and Poor patients comprised 68.7%. current smokers were 110. Significantly more women had history of hypertension and diabetes.

This study was shown that Indian patients with Acute Coronary Syndrome (ACS) are younger, are from poorer-socio-economic background and have high rates of hypertension and diabetes.

D.STRESS

H.Singh. et, al (2002) studied that there are many coronary artery diseases (CAD). 90 subjects known cases of (Cardiovascular Disease) CVD and less than 75 years of age were taken for the present study. All subjects included in the study were subject to

A) Personality type assessment.

B) Presumptive stressful event.

The study resulted in the age was 57 years. The youngest was 42 years while the oldest was 72 years. The Male: Female ratio was 14:1. As assessed 51 (57%) had type A personality, 39 (43%) had type B personality. In this study mean time stressful events were 15.83 and mean past one year stressful life events to be 3.4. He concluded that type A personality individuals behavior is associated with higher incidence of Coronary Heart Disease (CHD).

PHYSICAL ACTIVITY AND CVD

Harpal S.Buttar Dum Ph.D., Tino Li Ph.D., Physical activity or exercise is a part of everyone's life. However, it is the degree of physical exertion that differs among people. Several evidence-based studies have consistently indicated a positive

correlation between physical activity and good health. Nevertheless, various aspects of physical activity must be considered when evaluating how well controlled studies have been conducted. Definitions of physical activity often vastly differ, rendering the results of different studies incomparable. Fortunately, there are three areas of interest that remain relatively consistent in defining physical activity, namely, intensity, duration and frequency. Intensity refers to the degree or extent of exertion and is often presented as a percentage of target heart rate or lung volume (ie, oxygen consumption [VO2]). Duration refers to how long a particular activity is undertaken, and frequency refers to the number of times a given activity is performed. A multitude of studies (2–34) have been conducted showing a relationship between physical activity and overall well-being. It has been repeatedly shown that an inverse relationship exists between physical activity and the occurrence of CVDs (ie, with increased physical activity, the relative risk of developing CVD is decreased). With regard to specific surrogate markers and biological factors pertaining to CVD risk factors (eg, high BP, and increased cholesterol and triglyceride concentrations), clinical and laboratory evaluations have been performed to show the benefits of physical activity. Such quantitative measurements were performed to determine the influence of exercise on blood coagulation and fibrinolysis, vascular remodelling, BP and blood lipid profiles. Correspondingly, these studies have also shed light on the possible adverse consequences of exercise, especially when dealing with patients with chronic heart failure, and the precautions that should be taken to bypass these health risks (12–30).

Influence of exercise on blood coagulation and fibrinolysis

Blood coagulation and fibrinolysis are two important physiological functions influencing the formation and breakdown of clots within blood vessels. Fibrinolysis is an enzyme-activated phenomenon (12). Moreover, these hematological functions are

influenced by various blood factors, which either inhibit or promote clot formation or breakdown. To understand the effectiveness of the mechansims of coagulation and fibrinolysis, serum concentrations of biomarkers such as plasma fibrinogen, factor VIII, factor VII, tissue plasminogen activator (t-PA), plasminogen activator inhibitor-1 (PAI-1) and fibrin D-dimer are measured (14). Blood platelet count and aggregation are also important aspects of optimal coagulation and fibrinolysis in the body (15). Inhibition of platelet aggregation plays a very important role in the prevention of heart attacks and strokes. Increased concentrations of fibrinogen, platelet aggregation or activation, factor VII, factor VIII and PAI-1 increase the probability of intravascular coagulation. On the other hand, increased serum concentrations of t-PA increase the probability of fibrinolysis; specifically, t-PA is responsible for promoting the activity of plasminogen, an enzyme that actively dissolves unwanted blood clots. PAI-1 inhibits the action of t-PA by binding to it and rendering it inactive. The remaining coagulation factors effectively act to build a clot by causing the aggregation of platelets and by forming the rigid network that is the basis of blood clot formation (12). A balance in the serum concentrations of coagulation and fibrinolytic factors is important because they seem to be directly correlated to the risk of cardiovascular ischemic events such as stroke and MI. Clotting and fibrinolytic factors play a pivotal role in the formation of thrombi and emboli (13). Hence, in patients with CVD, it is essential to ensure that a proper balance of these blood constituents is maintained. Several studies have attempted to show the influence of exercise on blood coagulation and fibrinolysis and, overall, positive effects of physical activity have been reported (12–16).

CHAPTER-III

METHODOLOGY

CHAPTER-III

METHODOLOGY

"Methods are tools. Use them; don't let them use you."

Methodology is the framework for concluding a study. It indicates the general pattern for recognizing the procedure to gather valid and reliable data for an investigation.

This chapter gives a description of the research approach, Research design, Variables under the study, setting of the study, Population, Sampling and Sampling technique, Schematic representation of the study design.

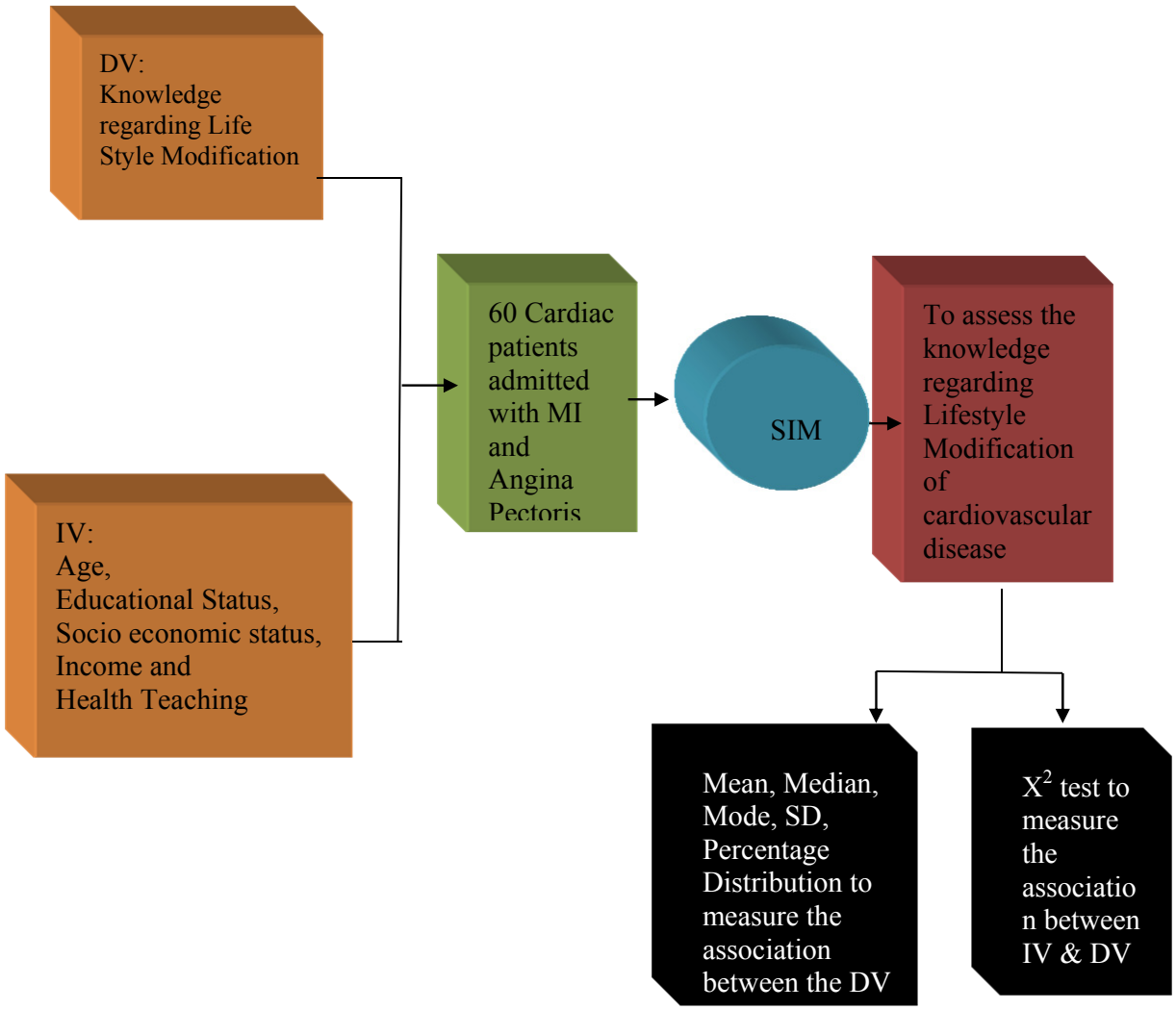
The present study is aimed at assessing the knowledge of cardiac patients regarding the lifestyle modification and to find the association between the knowledge score with selected demographic variables with a view to develop an self instructional module to enhance the knowledge of cardiac patients regarding the lifestyle modification for maintaining healthy heart.

Research approach

Research approach indicates the procedure for conducting the study. In order to accomplish the objectives of the study, a evaluative approach has been adopted.

Research design

Evaluation Research studies are an applied form of research design which involve the judgment about how well a specific programme, practice, Procedure or policy is working.



Key Words

IV: Independent variables

DV: Dependent variables

SIM: Self Instructional Module

Fig. 2 Schematic Representation of the Study Design

VARIABLES

A variable is a measurable component of an object or event that may fluctuate in quantity or quality from one individual, objects or event to another individual of the some general class.

Dependent Variables

The dependent variable is that phenomenon in the hypothesis, is not manipulated by the investigator but accepted as it occurs. It also called the effect, the response, the criterion measure, behavior or outcome that is researcher wishes to predict, study and explain.

In this study the dependent variable was knowledge on lifestyle modification for maintaining healthy heart which will be tested before and after conducting self instructional module among cardiac patients.

Independent Variables

The independent variable is that phenomenon in the hypothesis that, in the non-experimental study, to test the hypothesis, is not manipulated by the investigator. It is also called the cause, stimulus, non-experimental variable that is manipulated by the researcher in order to study the effect upon the dependent variable.

In this study the independent variable was Age, Educational status, income And health teaching.

Setting of the study:

The setting is the location where the study is conducted. For the present study the setting was in Apollo Hospital, Madurai. This setting was selected because of the

availability of the sample, feasibility of conducting the study of the investigator with the setting.

Population:

Polit and Hungler (2004), referred population as the entire set of individuals or subjects having common characteristics, sometimes referred to as universe. Population may be of two types, target population and accessible population. In this study two populations were described.

Sample

Sample refers to subset of a population that is selected to participate in a study. It is a portion of a population that represents the entire population. In this study, sample consists of 60 patients of selected hospital, Madurai.

Sampling Technique

Sampling defines the process of selecting a group of other elements with which to conduct a study. In this study non – probability random sampling technique was adopted.

Random sampling involves selection of sample on basis of probability. Each of the population has an equal chance of being selected.

Criteria for sampling

a) Inclusion criteria

1. The patients with the CAD who are admitted in selected hospitals at Madurai .
2. The patients with the CAD who are able to read and understand Tamil OR English.
3. Patients who are willing to participate in the study
4. Patients who are available during the period of collecting data

b) Exclusion criteria

1. The patients with the CAD admitted in selected hospitals at Madurai and who are not willing to participate in the study.
2. The patients with the CAD who are not able to read and understand Tamil or English.

DEVELOPMENT OF THE TOOL

The most important aspect of any investigation is the collection of appropriate information, which will provide necessary data to answer the question raised in the study.

A Self Instructional Module was selected based on the objectives of the study, as it was considered to be the most appropriate instrument to elicit the responses from the participants.

An interview schedule demographic Performa was prepared to identify the demographic variables, self administered questionnaire was prepared to assess the knowledge of the patients those who are affected by Cardiovascular Disease. Knowledge questionnaire consisted of 34 questions each of it carried a score of 1.

The tool was developed:

- After reviewing the related literature.
- After reviewing the related studies from journals and periodicals.
- Based on the experience of the investigator and
- Based on the contact and consultation of the subject experts

All these helped in the ultimate development of the tool.

DESCRIPTION OF THE TOOL

Based on the objectives of the study, the following tool was developed to generate the data.

The tool consists of following sections,

Section A: It consist of demographic data of the patients with CAD

Section B: Self administered questionnaire to assess the knowledge regarding the Life Style Modification for maintaining Healthy Heart among cardiac patients.

SECTION A:

It consists of demographic data which gives base line information of the patients with the CAD such as:

1) Age
2) Sex
3) Religion
4) Education
5) Occupation
6) Family income
7) Marital status
8) Type of family
9) Type of diet
10) Personal habits
11) Duration of illness
12) Medical diagnosis
13) Number of admissions in one year
14) Number of visit for follow-up etc.

SECTION B:

It consists of self-administered questionnaire to assess the knowledge regarding the Life Style Modification for maintaining healthy heart among cardiac patients in selected hospital at Madurai.

In mainly consists of five parts:

Part I : General knowledge related to heart disease

Part II : General information about Life Style Modification

Part III: Knowledge related to dietary modification & weight loss

Part IV: Knowledge related to exercise & stress management

Part V : Knowledge related to habits

All the five parts of questionnaire consists of 34 multiple choice questions, each having more than 4 options from which the correct option was to be chosen. Each correct item was scored 1 mark.

The subject who got a score of <50% were considered as inadequate knowledge, scores of 50-75% were considered as moderately adequate knowledge, scores of 75% were considered as well adequate knowledge .

CONTENT VALIDITY OF THE TOOL

Validity refers to whether a measuring instrument accurately measures what it is supposed to measure.

The content validity of the tool and self instructional module was ascertained in consultation with experts in the field of Medical & Surgical Nursing. Validation checklist was sent and was completed by the experts for content validation. The experts were requested to give their opinion regarding relevance, appropriateness and

degree of agreement in each item in the tool. Suggestions and recommendations given by the experts.

Suggestion elicits from experts

On knowledge questionnaire:-

One of the experts suggested adding the general knowledge regarding cardiac problems and avoiding unnecessary questions about anatomy and physiology of heart and neglecting adding more all of the above in the answer options.

The items were included and answer options were changed.

On demographic data:-

One of the experts suggested modify the data type questions. Accepted the suggestion and the items were changed.

Criteria rating scale for validation of tool was developed.

Part – I, comprised of demographic data and Part - II, comprised of self administered questionnaire on Life Style Modification for cardiac patients

Check list for the tool had relevant, need modification, not relevant options and remarks of experts.

TAMIL TRANSLATION

The tool was translated by the language experts into Tamil and it was translated to English by another expert to determine its content validity.

ETHICAL CONSIDERATION:

- ❖ An ethical clearance was obtained from the Apollo Hospital.
- ❖ Consent was taken from all the participants.

RELIABILITY OF THE TOOL

Reliability of research instrument is defined as the extent to which the instrument yields the same result on respected measure. It is then concerned with consistency, accuracy, precision, stability, equivalence and homogeneity.

The final tool was tested for reliability. The self administered questionnaire was administered to 10 patients. The reliability of the tool was established by testing the stability and internal consistency.

The stability of the tool is assessed by test retest method (Karl Pearson Coefficient formula) and the stability of the tool is 0.7 which indicate that tool is stable. The internal consistency of the tool is assessed by split half method and the internal consistency of the tool is 0.91.It indicates that the tool was reliable.

PILOT STUDY

A Pilot study is a small scale version or trial run, done in preparation for the major study. It is designed to acquaint the researcher with the problems to be encountered in preparation for the larger project.

It also provides the researcher to try out the procedure for collecting the data. The function of pilot study is to obtain information for improving the project or assessing its feasibility.

The subject selected for the pilot study possessed the same characteristics of the major study in order to maintain homogeneity. The consent was taken by explaining the purpose of the study.

Pilot study was conducted in to assess the effectiveness of self instructional module regarding lifestyle modification among cardiac patients in Apollo hospital, Madurai..

After that Self Instructional Module was administered. After 3 days gap post-test was done to the same subjects by using the same questionnaire.

Statistical analysis done with the help of paired 't' test to observe the significant difference in the knowledge scores of subjects before and after the self instructional module.

. The sample taken for pilot study was not considered in the main study.

The Purpose of pilot study was

- To find out the feasibility on conducting the final study.
- Refine the tool.
- To determine the method of data analysis.

After conducting the pilot study, it was found that the study was feasible , authentic and clients was cooperative, the questionnaire and the teaching plan were relevant and time and cost of the study were within the limits .

Tool to validate the effectiveness of Self Instructional Module:

The same structured questionnaire which was used for pre-test used to assess the effectiveness of the Self Instructional Module on Life Style Modification among Cardiac patients in selected hospital, at Madurai.

Prior to the actual data collection, written permission was obtained from the higher authorities from hospitals and concern from the cardiac patients to conduct interview. Data collection was carried out in three phases on the basis of inclusion criteria.

PHASE 1:

Pre-test will be conducted to assess the knowledge regarding the Life Style Modification for maintaining healthy heart among cardiac patients using self administered questionnaire. Duration: 2 days.

PHASE 2:

Self Instructional module regarding the Life Style Modification for maintaining healthy heart among cardiac patients was administered after phase1.

PHASE 3:

After 3 days post-test was administered to assess the level of knowledge regarding the Life Style Modification for maintaining healthy heart among cardiac patients to the same subjects with the help of same questionnaire duration of the study: 8-10 days

DESCRIPTION OF THE INTERVENTION

The samples were drawn from the patients those who have been admitted in Apollo hospital, Madurai. The investigator was contacted around 60 patients and explained the objectives and need of the study and administers the Self instructional Module.

The score were given such as lesser the score; reflect inadequate knowledge. Based on the scores, the self instructional module were planned and prepared by the investigator and it send to the experts for the tools validity. Based on the suggestion given by the experts and guide the tool was modified for final data collection.

The total sample consisted of 60 cardiac patients for self instructional module were administered.

The pre – test and post – tests knowledge level on life style modification to maintain healthy heart were evaluated to find out the effectiveness of self instructional module.

PLAN FOR DATA ANALYSIS

The collected data will be planned and analyzed in the form of descriptive and inferential statistics. The analyzed was presented in the form of tables and figures by using mean, median, mode, percentage, standard deviation, chi-square test.

HUMAN RIGHTS PROTECTION:

The study was conducted after getting the approval from the ethical Committee. Permission was obtained from authority of particular Hospital. The purpose and other details of the study were explained to the study subjects and oral consent was obtained from them.

CHAPTER-IV

DATA ANALYSIS AND INTERPRETATION

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

SECTION A

Description of sample characteristics.

A sample of 60 patient of selected hospital was drawn, based on the specific criteria. The data on sample characteristics were analyzed using descriptive statistics and presented in terms of frequency, percentage and diagrams.

The data obtained from sample are presented in terms of age, sex, occupation, education, family income, type of habitat, type of diet, family history of cardiac problems, duration of illness, number of admission in one year, exposure to type of media, patient visits for follow-up, and awareness about life style modification.

SECTION A

Table-1

FREQUENCY AND DISTRIBUTION DEMOGRAPHIC VARIABLES OF CARDIAC PATIENTS

S.No	Demographic characteristics	No	%
1	Age		
	a. 26 -35 years	9	15.00
	b. 36 – 45 years	10	16.67
	c. 46 – 55 years	26	43.33
	d. 56 -65 years	8	13.33
	e. 65 years and above	7	11.67
2.	Gender		
	a. Male	37	61.67
	b. Female	23	38.33
3	Education		
	a. Non-literate	14	23.33
	b. Primary education	12	20.00
	c. High school	13	21.67
	d. PUC	10	16.67
	e. Degree	7	11.67
	f. Post Graduate	4	6.66
4	Occupation		
	a. Labourer	26	43.33
	b. Government employee	10	16.66
	c. Private employee	13	21.67
	d. Business	4	6.67
	e. Others	7	3.67
5	Religion		
	a. Hindu	36	60.0
	b. Christian	6	10.0
	c. Muslim	18	30.0
	d. Any other	0	0.0

6	Marital status		
	a. Married	56	93.33
	b. Widow (er)	4	6.67
7	Type of family		
	a. Nuclear	37	61.67
	b. Joined	23	38.33
8	Monthly family income		
	a. More than Rs-5000	34	56.67
	b. Rs.5001-10,000	17	28.33
	c. >Rs.10,000-20,000	9	15.00

Table1- shows 9 (15.00%) of belongs to 26 years to 35 years of age, 10 (16.67%) of belongs to 36 years to 45 years of age, 26 (43.33%) of belongs to 46 years to 55 years of age, 8 (13.33%) of belongs to 56years to 65 years of age, (11.67%) belongs to 65 years and above.

It was inferred that majority of patients were in the age group of 46 to 55 years and followed by the age of 36-45 years.

The data presented in the above table reveals that majority of the respondents of the study were Males (n=37), (67%) and 23 respondents (38.33%) were Female.

The data presented in the above table reveals that education of the patients. In that non-literate 14(23.33 %), Primary education n=12(20.00%), High school n=13 (21.67%), PUC n=10 (16.67%), Degree n=7 (11.67%), and Post graduate only n=4 (6.66%). So majority of the cardiac patients were non-literate 23.33% (n=14), followed the high school 21.67% (n=13), and primary education 20% (n=12).

The data presented in the above tables reveals the occupational status of the cardiac patients. In that participants n=26 (43.33%) person belongs to laborer, n=10 (16.66%) belongs to Government employee, n=13 (21.67%) belongs to Private

employee n=4 (6.67%) belongs to Business man, and n=7 (11.67%) belongs to some other works.

The data presented in the above table reveals that majority (60%) of the participants in the present study were Hindu n=36, followed the Muslim n=18 (30.0%), and minority were Christian people n=6 (10%)

The data presented in the above table reveals that majority (93.33%) of the participants in the present study were married people, and others were n=4 (6.67%) widower.

Table-7 in respect of the type of family majority of the participants n=37 (61.67%) belongs to nuclear family type, and others are n=23 (38.33%) belongs to joined family.

The data presented in the above table reveals that majority=37 (61.67%) of the participants in the present study were belongs to nuclear family type, N=23 (38.33%) of the respondents were joined family.

When considering total income of family n=34 (56.67%) belongs to More than Rs-5000 group, n=17 (28.33%) belongs to Rs-5001-10,000-group, and remaining members n=9 (15.00%) belongs to >Rs-10,000-20,000.

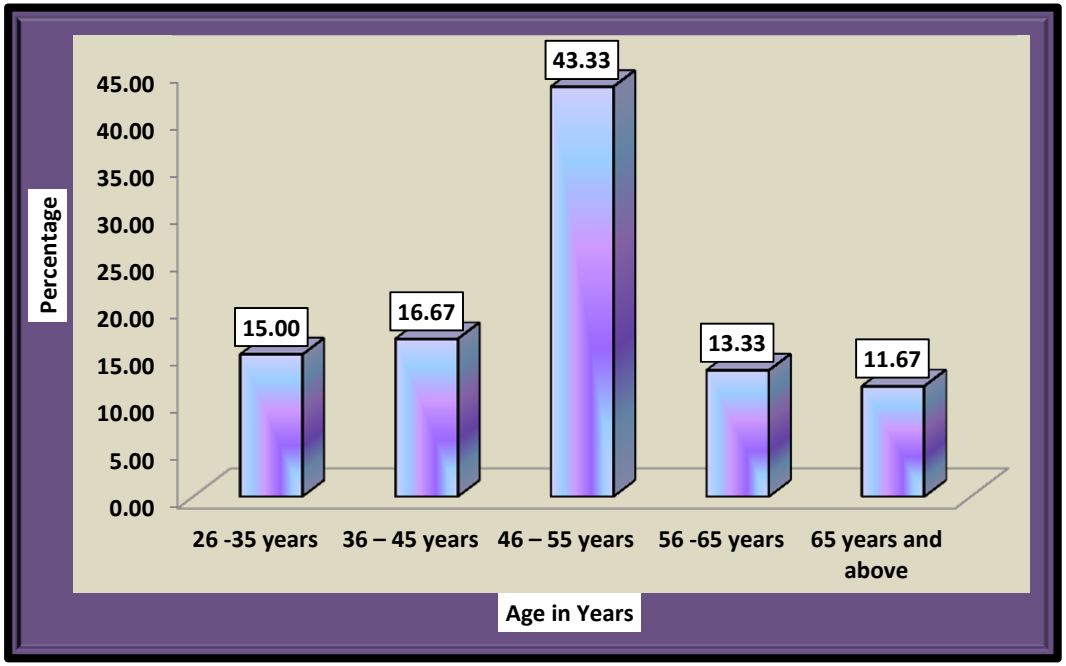


FIGURE-3 FREQUENCY AND PERCENTAGE DISTRIBUTION OF AGE OF CARDIAC PATIENTS.

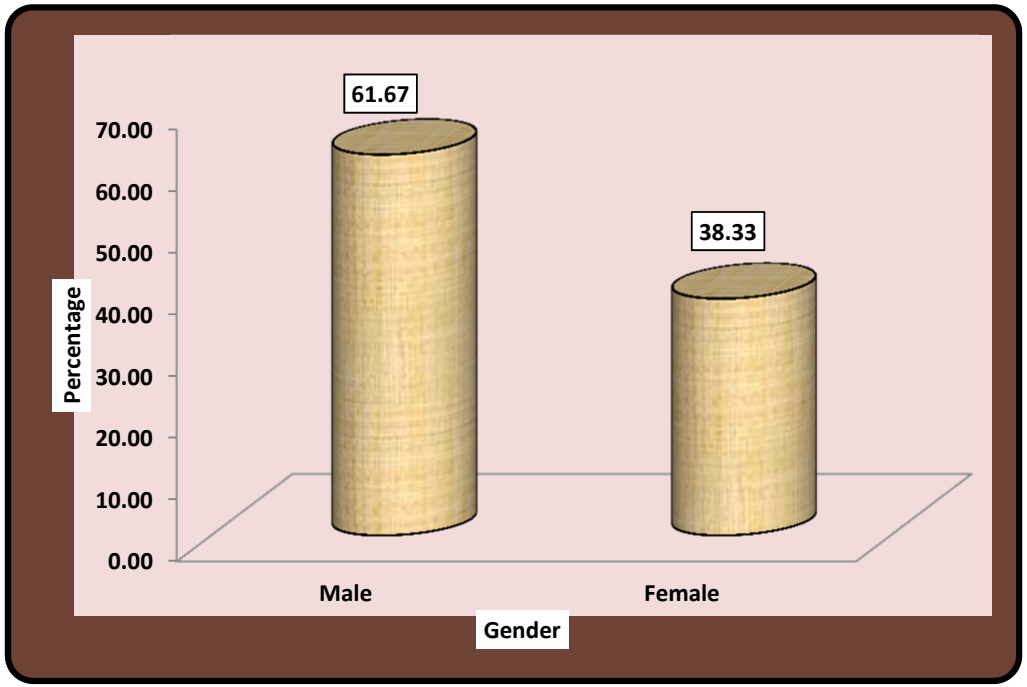


FIGURE-4 FREQUENCY AND PERCENTAGE DISTRIBUTION OF GENDER OF THE CARDIAC PATIENTS

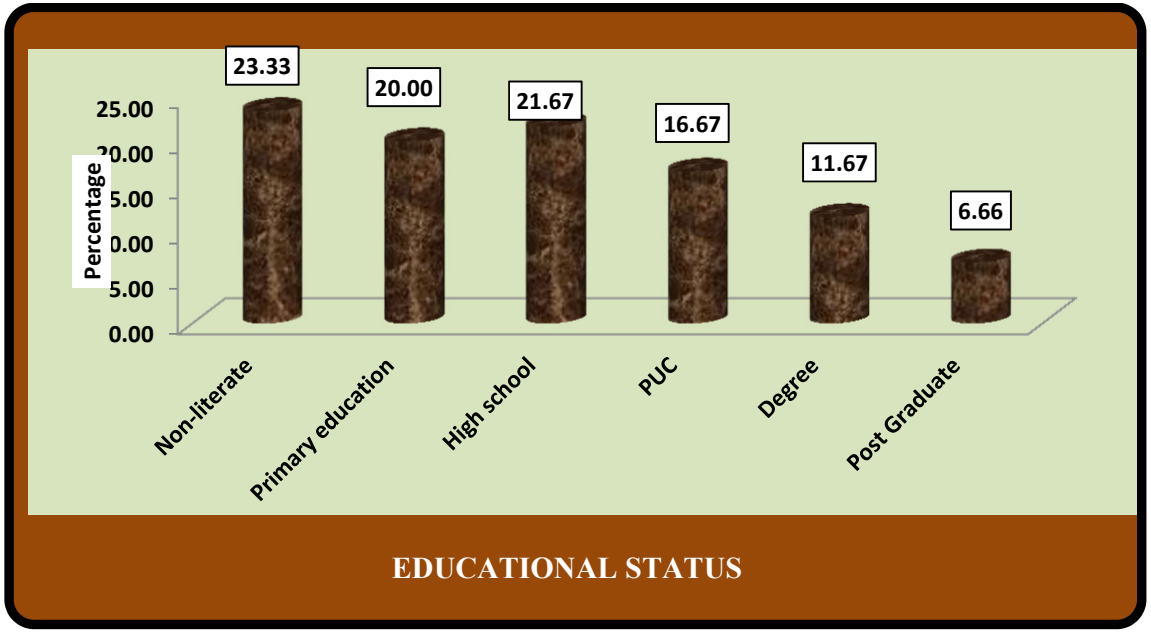


FIGURE-5 FREQUENCY AND PERCENTAGE DISTRIBUTION OF EDUCATIONAL STATUS OF CARDIAC PATIENTS

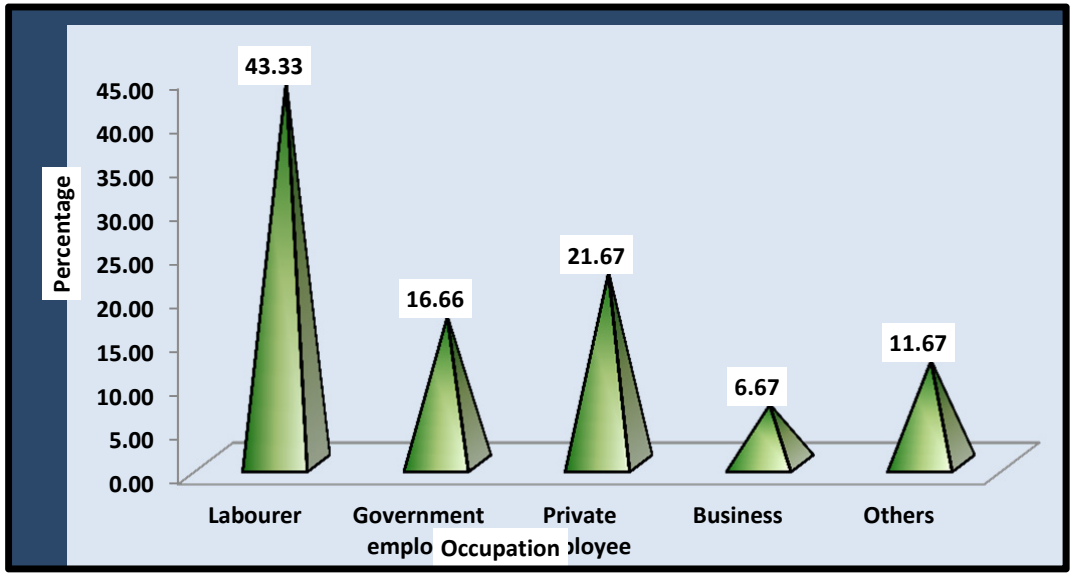


FIGURE-6 FREQUENCY AND PERCENTAGE DISTRIBUTION OF OCCUPATIONAL STATUS OF CARDIAC PATIENTS

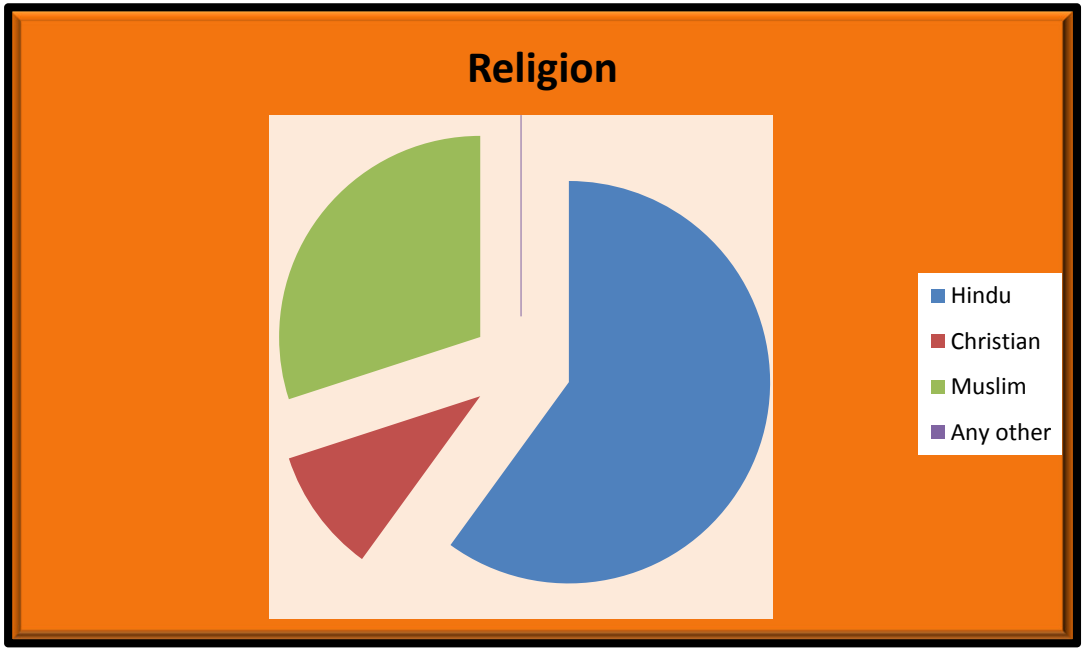


FIGURE- 7 FREQUENCY AND PERCENTAGE DISTRIBUTION OF RELIGION

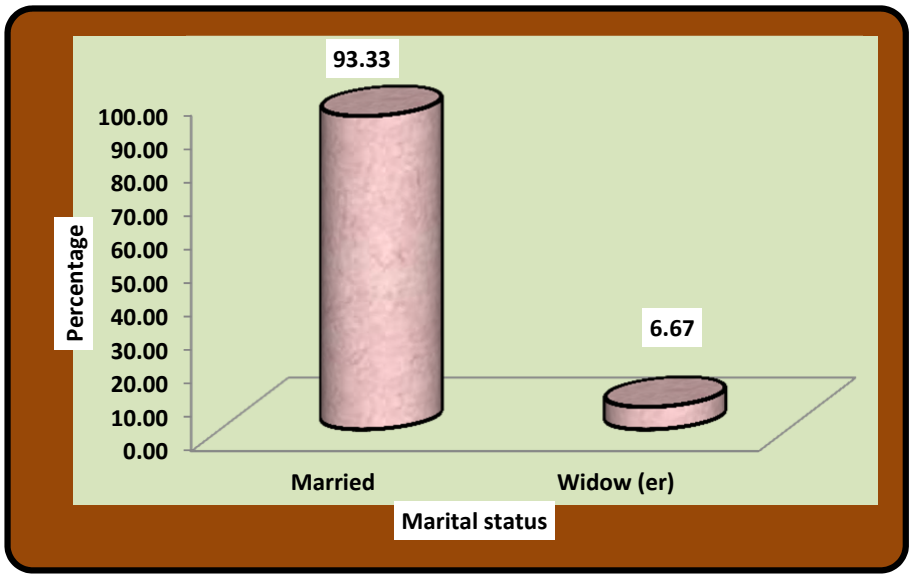


FIGURE-8 FREQUENCY AND PERCENTAGE DISTRIBUTION OF MARITAL STATUS OF CARDIAC PATIENTS

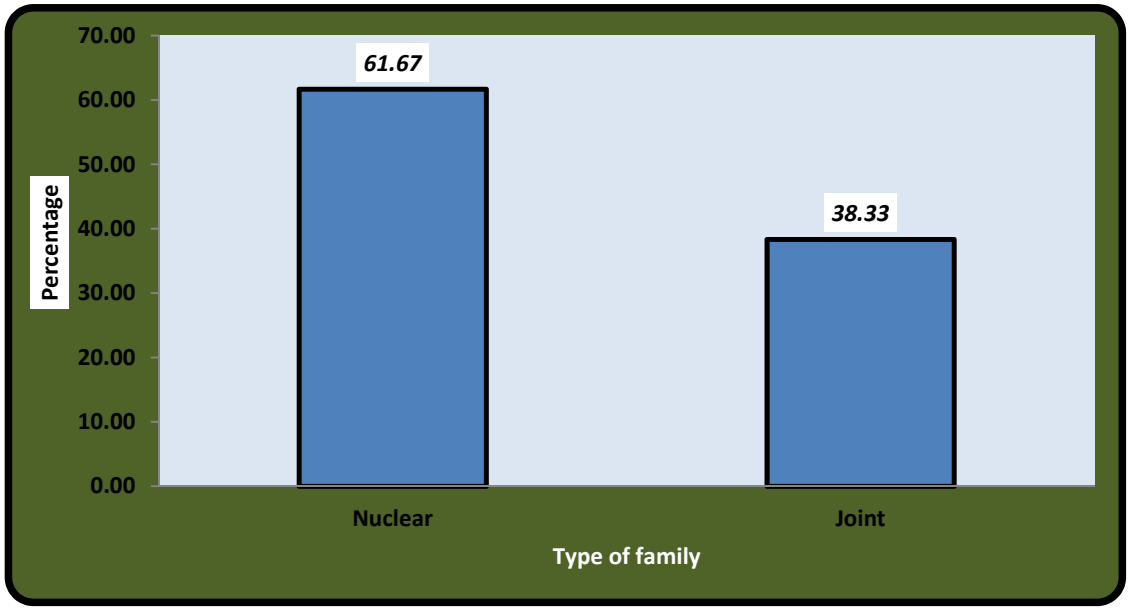


FIGURE-9 FREQUENCY AND PERCENTAGE DISTRIBUTION TYPE OF FAMILY

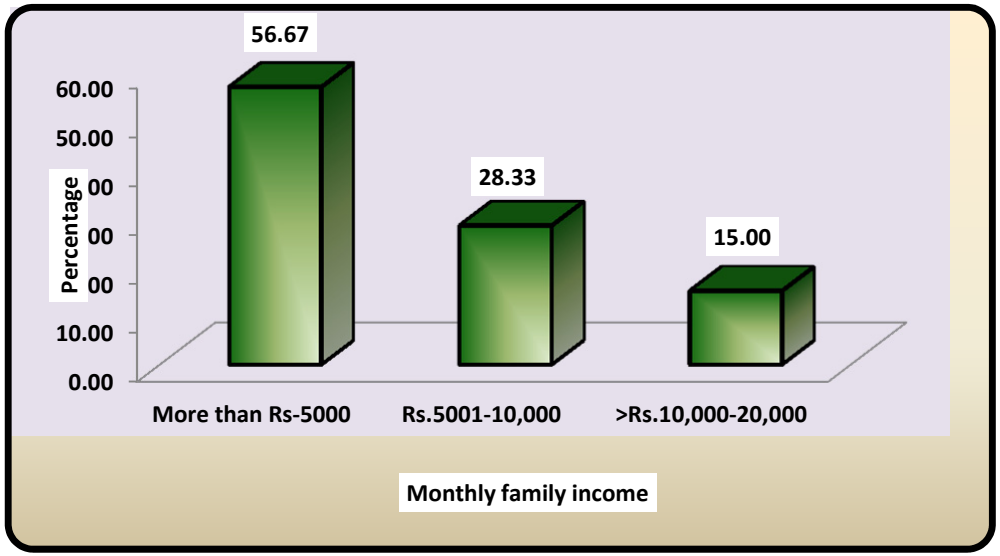


FIGURE-10 FREQUENCY AND PERCENTAGE DISTRIBUTION OF MONTHLY FAMILY INCOME OF CARDIAC PATIENTS

DEMOGRAPHIC VARIABLES OF PATIENTS

TABLE-2

FREQUENCY AND PERCENTAGE DISTRIBUTIONS OF DEMOGRAPHIC VARIBALES OF PATIENTS

S.No	Demographic characteristics	No	%
9.	Duration of illness		
	a.1-3 years	27	45.00
	b.4-6 years	10	16.67
	c.7-12 years	11	18.33
	d.>13 years	12	20.33
10.	Type of deit		
	a. Vegetarian	14	23.33
	b. Non-vegetarian	46	76.67
11	Habits		
	a. Alcoholic	21	35.00
	b. Smoking/alcoholic	17	28.33
	c. Tobacco chewing	18	30.00
	d. No habits	4	6.67
12	Type of habitat		
	a. Urban	36	60.0
	b. Rural	24	40.0
13	Medical diagnosis		
	a. Myocardial infarction	42	70.0
	b. Angina pectoris	18	30.0
14	No. of admissions in one year		
	a. One time	27	45.00
	b. 2 times	25	41.67
	c. 3 times	6	10.00
	d. More than 3 times	2	3.33

15	Exposure to type of media		
	a. Television	33	55.00
	b. News paper	17	28.33
	c. Magazine	6	10.00
	d. All of the above	4	6.67
16	Patients visits physicians for follow-up		
	a. Once in a week	6	10.00
	b. Once in a month	22	36.67
	c. Once in 2 month	18	30.00
	d. As needed	14	23.33
17	Awareness about lifestyle modification		
	a. Yes	39	65.0
	b. No	21	35.0

With regard to the duration of illness of participants n=27 (45%) belongs to 1-3 years duration, n=10 (16.67 %) belongs to 4-6 years of duration, n=11 (18.33 %) belongs to 7-12 years of duration, and n=12 (20.33%).

When considering the dietary pattern, maximum number 14(23.33%) of them were vegetarian whereas n=46 (76.67%) were vegetarians.

When considering the personal habits, maximum number 21 (35.00%) of them had alcoholic, whereas n=18 (30.00%) of them had tobacco chewing, n=17 (28.33%) had both smoking and alcoholic habits, n=4 (6.67%) of them had no habits.

When considering the type of habitat, maximum number 36 (60.00%) of them belongs to urban area, remaining members 24 (40.00%) of them belongs to rural area.

regarding the medical diagnosis most participants n=42 (70.00%) of them had myocardial infarction, remaining members n=18 (30.0%) of them had angina pectoris.

When calculating the no. of admissions in one year most participants n=27 (45.00%) of them came for admission one time only, n=25 (41.67%) of them came for admission 2 times, n=6 (10.00%) of them came for 3 times, n=2 (3.33%) of them came for more than 3 times in one year.

When considering the exposure of type of media most n=33 (55.00%) of them exposed to television, n=17 (28.33%) of them exposed to news paper, n=6 (10.00) of them exposed to magazine, and remaining members n=4 (6.67%) of them exposed to all type of media.

When considering the patients visits for follow-up most participants n=22 (36.67%) of them came for once in month, n=18 (30.00%), n=14 (23.33%) of them came for only when needed, remaining of them n=6 (10.00%) came for once in week.

When considering the awareness about the life style modification among cardiac patients most n=39 (65.0%) of them know about that, remaining members n=21 (35.0%) do not know about the awareness of life style modification.

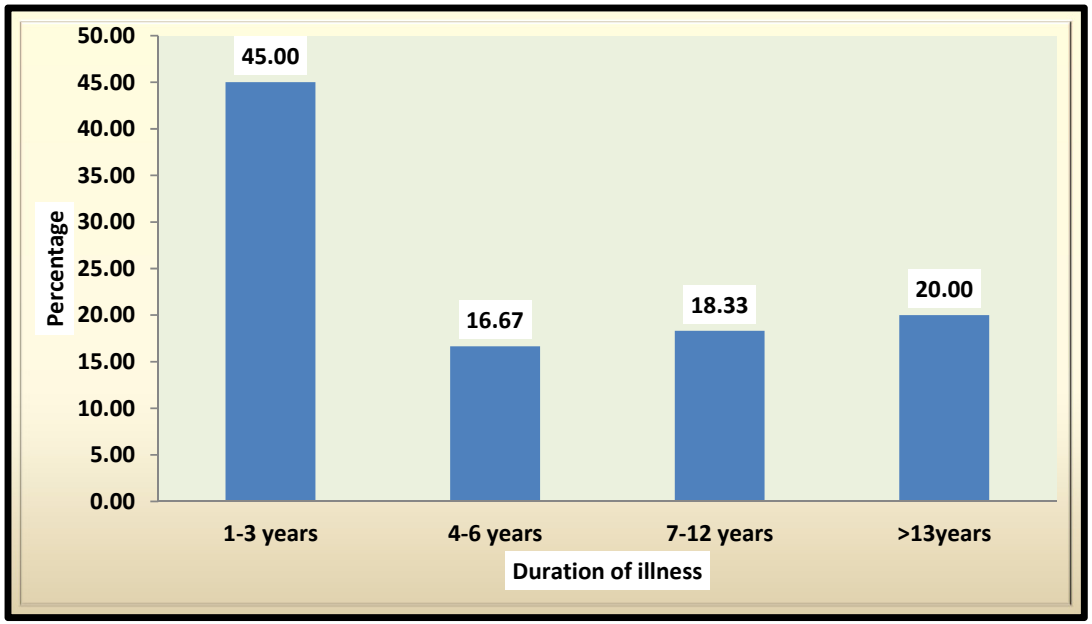


FIGURE-11 FREQUENCY AND PERCENTAGE DISTRIBUTION OF ILLNESS OF CARDIAC PATIENTS

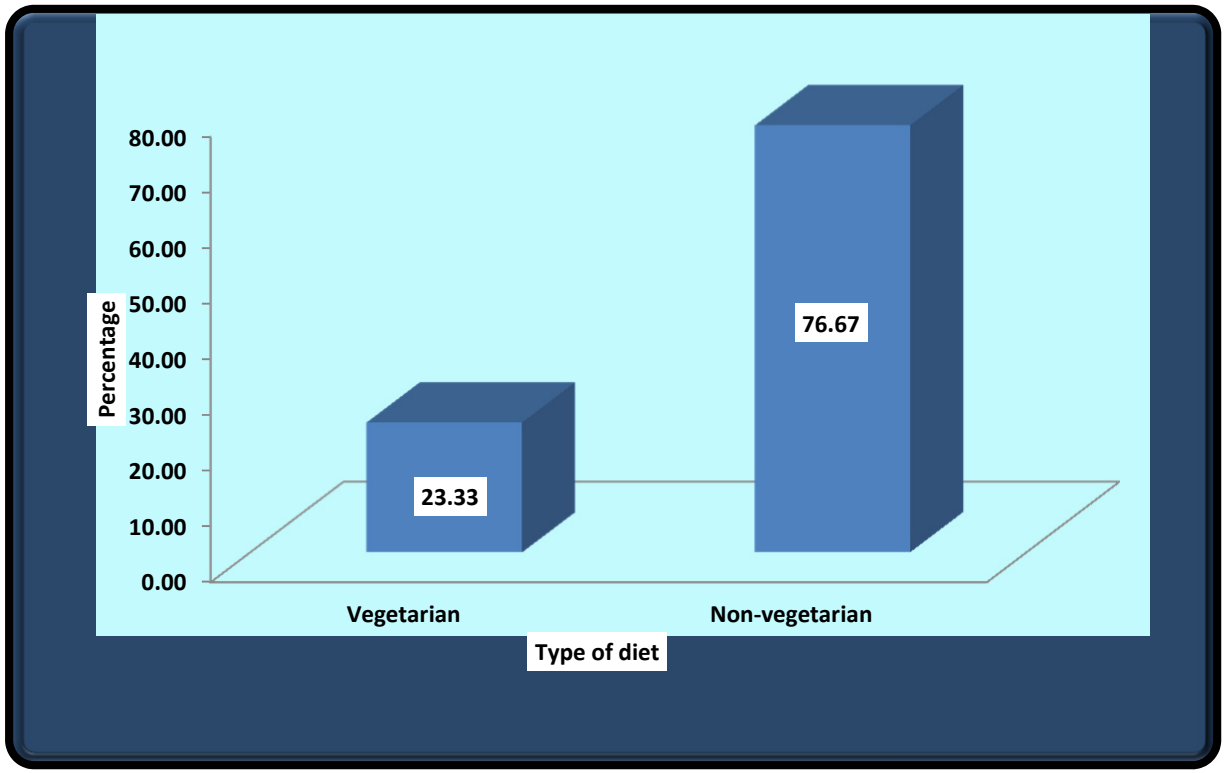


FIGURE-12 FREQUENCY AND PERCENTAGE DISTRIBUTION OF TYPE OF DIET CARDIAC PATIENTS

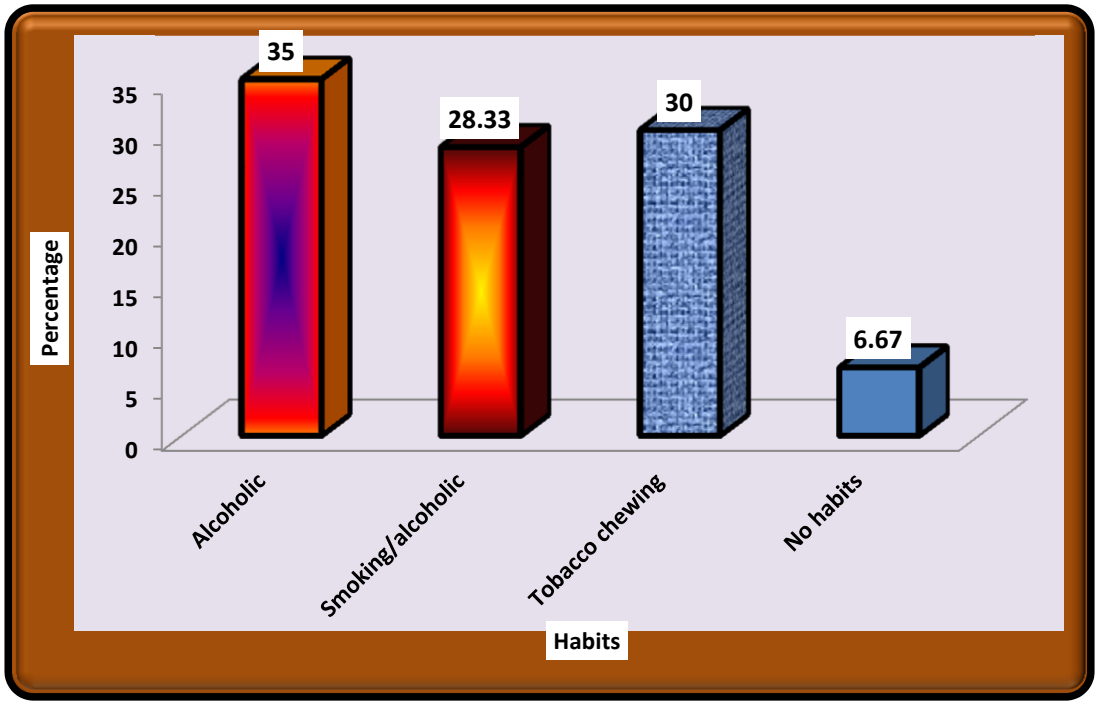


FIGURE-13 FREQUENCY AND PERCENTAGE DISTRIBUTION OF TYPE OF CARDIAC PATIENTS

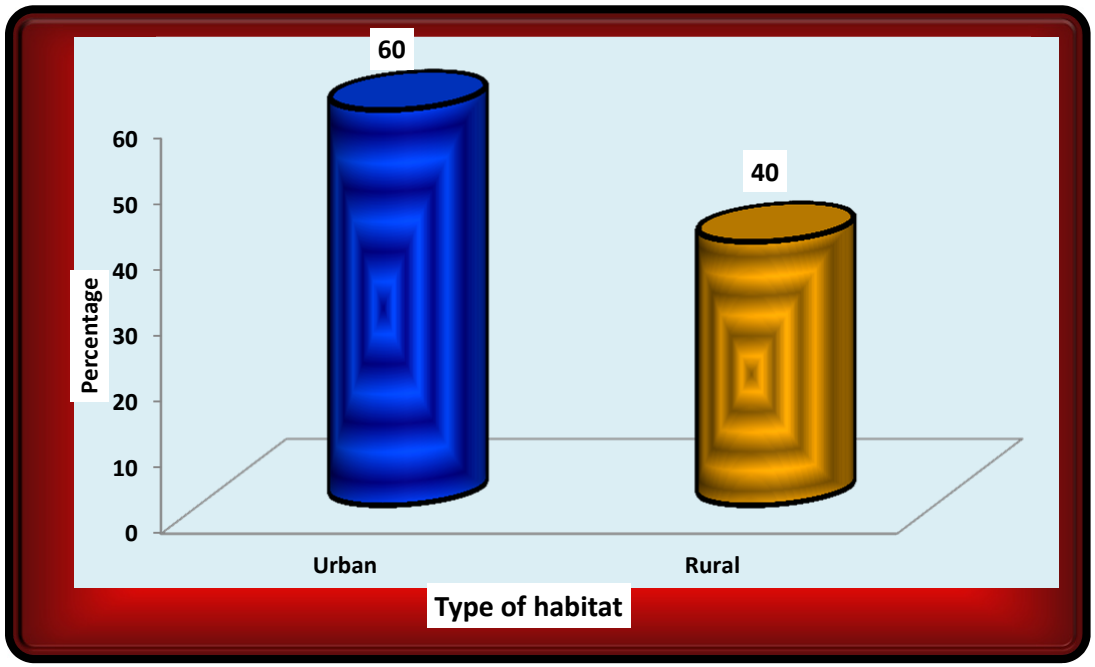


FIGURE-14 FREQUENCY AND PERCENTAGE DISTRIBUTION OF TYPE OF HABITAT OF CARDIAC PATIENTS

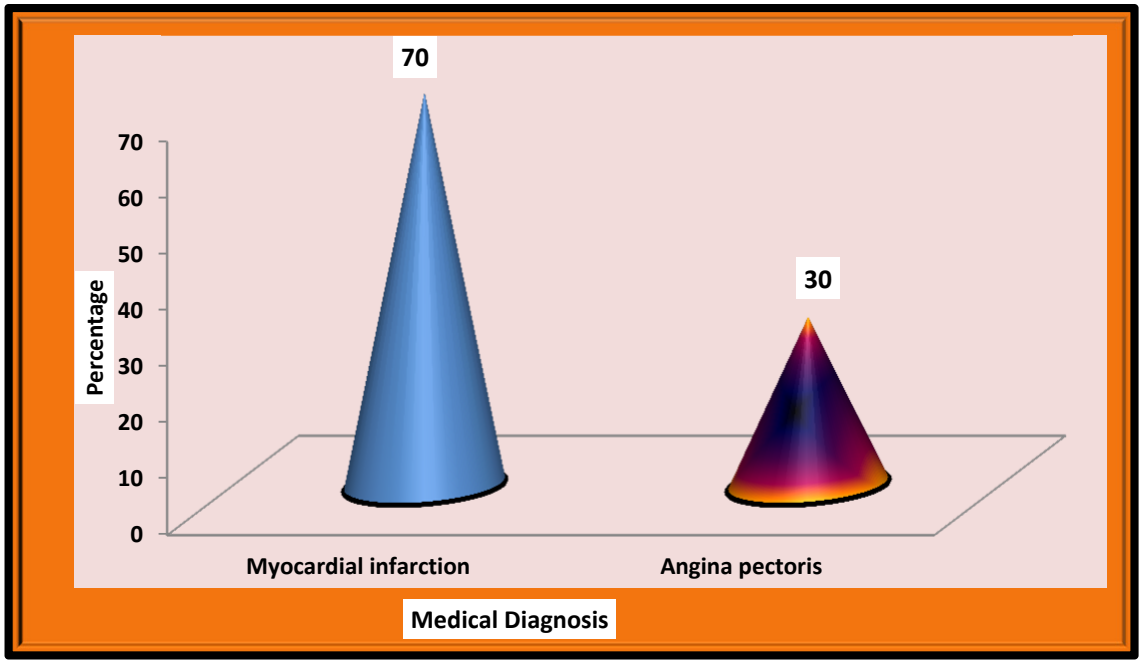


FIGURE-15 FREQUENCY AND PERCENTAGE DISTRIBUTION OF MEDICAL DIAGNOSIS CARDIAC PATIENTS

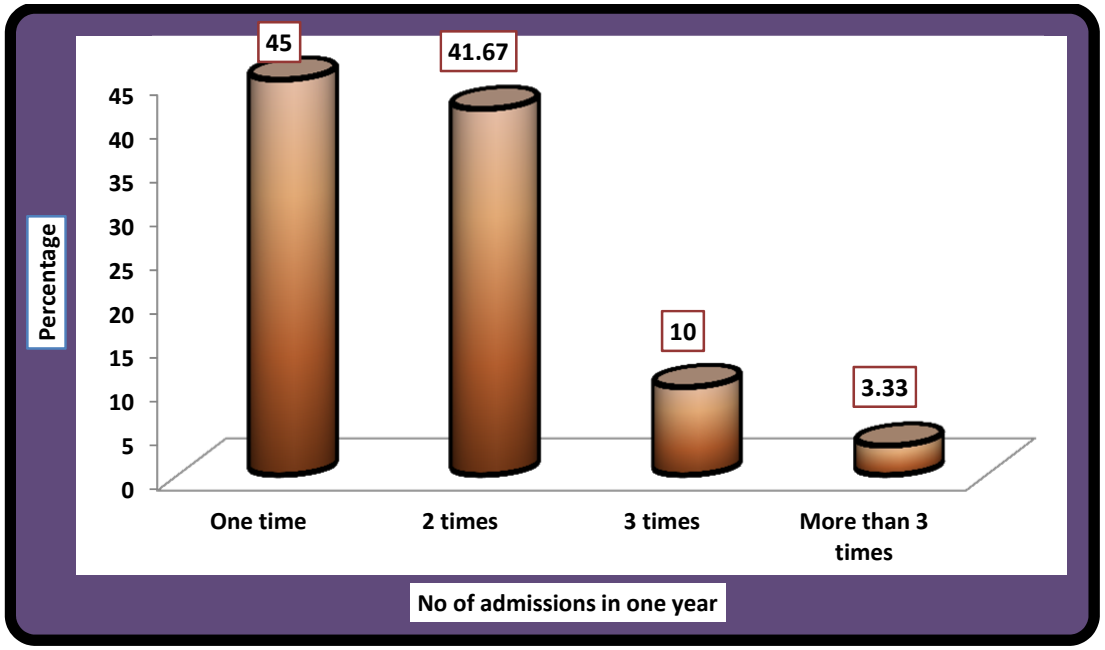


FIGURE-16 FREQUENCY AND PERCENTAGE DISTRIBUTION OF NUMBER OF ADMISSIONS IN ONE YEAROF CARDIAC PATIENTS

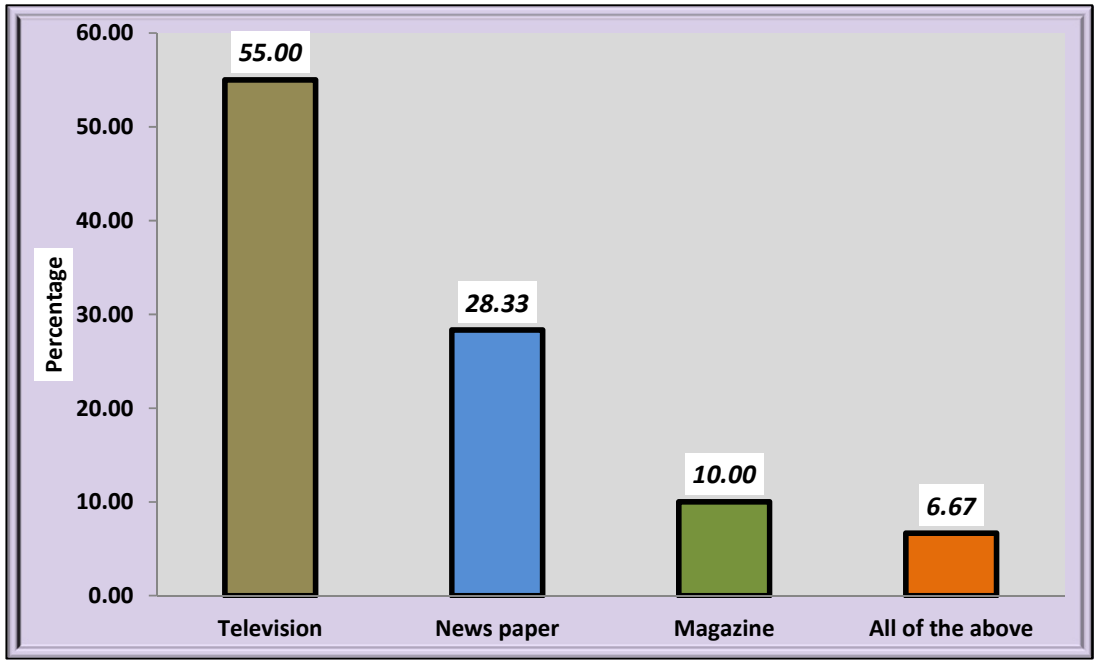


FIGURE-17 FREQUENCY AND PERCENTAGE DISTRIBUTION OF TYPE OF EXPOSURE TO MEDIA OF CARDIAC PATIENTS.

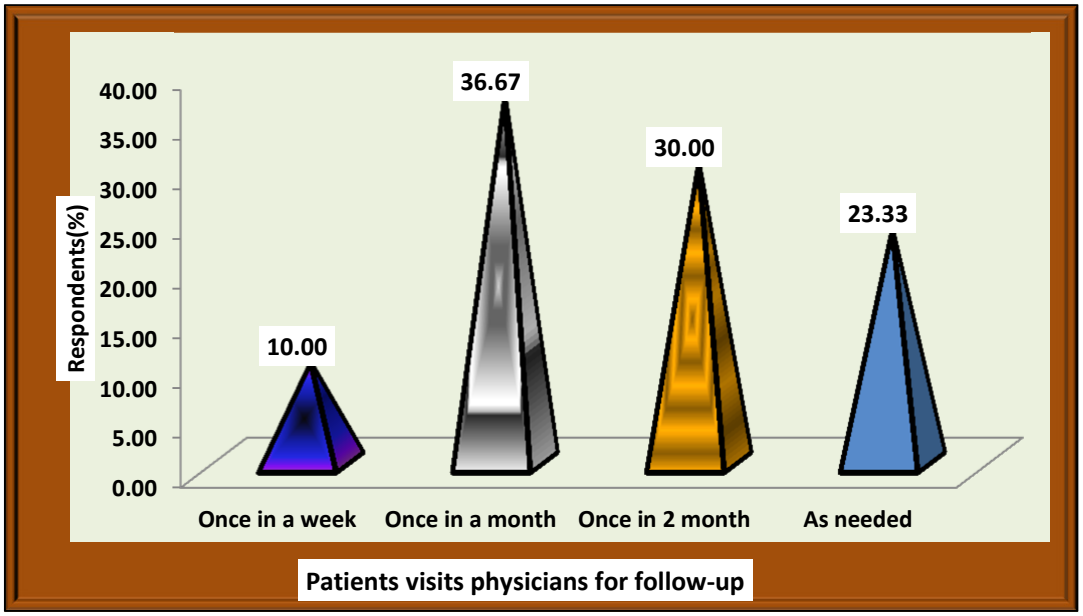
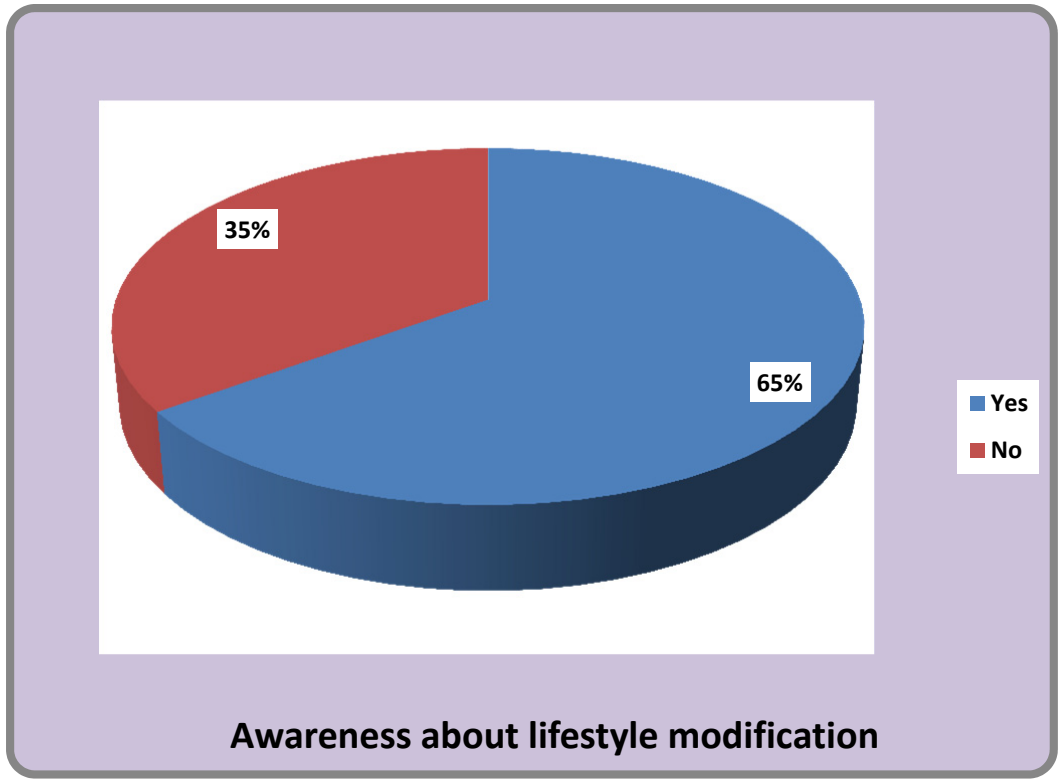


FIGURE-18 FREQUENCY AND PERCENTAGE DISTRIBUTION OF PATIENTS VISITS FOR FOLLOW-UP OF CARDIAC PATIENTS



FIGUR-19 FREQUENCY AND PERCENTAGE DISTRIBUTION OF AWARENESS ABOUT LIFE STYLE MODIFICATION AMONG CARDIAC PATIENTS

SECTION-B

TABLE -3

DISTRIBUTIONS OF RESPONDENTS ACCORDING TO THEIR KNOWLEDGE LEVELS.

n=60

Level of knowledge	Score	No of Respondents	
		No	%
Inadequate	> 50%	38	63.33
Moderate	50--75%	22	36.67
Adequate	>75%	0	0.00

The above table depicts the knowledge of the respondents based on the test score on life style modification for cardiac patients. Majority n=38 (63.33%) of the respondents had inadequate knowledge on life style modification for cardiac patients. n=22 (36.67%) of the respondents had average knowledge and only 0 percentage of the respondents had adequate knowledge on the topic.

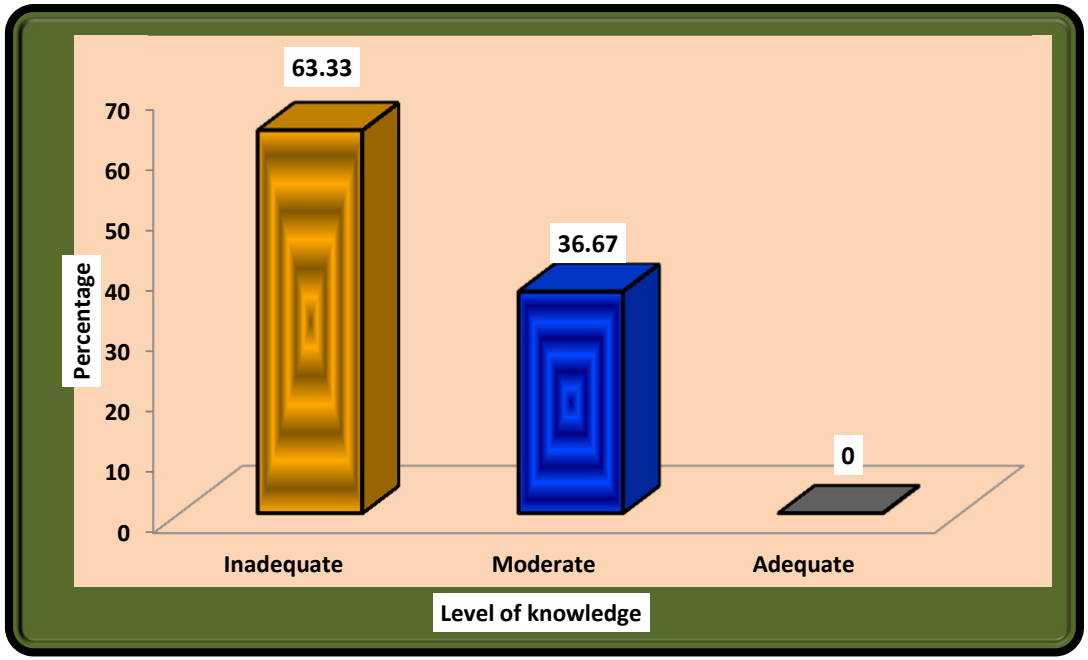


FIGURE 20 PERCENTAGE AND DISTRIBUTIONS OF RESPONDENTS ACCORDING TO THEIR KNOWLEDGE LEVELS.

SECTION-C

TABLE -4

ASPECT WISE PRE INTERVENTIONAL KNOWLEDGE SCORE

n=60

Aspect wise knowledge	Inadequate (< 50%)		Moderate (50--75%)		Adequate (>75%)	
	No	%	No	%	No	%
General knowledge	40	66.67	20	33.33	0	0.00
Life style modification	11	18.33	49	81.67	0	0.00
Dietary modification & weight loss	31	51.67	21	35.00	8	13.33
Exercise & stress management	32	53.33	14	23.33	14	23.33
Habits	25	41.67	27	45.00	8	13.33
Overall	38	63.33	22	36.67	0	0.00

The above table depicts the aspect wise pre interventional knowledge score of the respondents based on the test score on general knowledge on cardiac problems in that Majority n=40 (66.67%) of them respondents had inadequate knowledge modification for cardiac patients. n=20 (33.33%) of the respondents had average knowledge and only 0 percentage of the respondents had adequate knowledge on the topic.

When considering the knowledge score on life style modification most of the participants n=49 (81.67%) of them had moderate knowledge, n=11 (18.33%) of them had inadequate knowledge, n=0 (0%) of them had adequate knowledge.

When considering the knowledge score on dietary modification & weight loss most of the participants n=31 (51.67%) of them had inadequate knowledge, n=21

(35.00%) of them had moderate knowledge, n=8 (13.33%) of them had adequate knowledge.

When considering the knowledge score on exercise & stress management most of the participants n=32 (53.33%) of them had inadequate knowledge, n=14 (23.33%) of them had moderate knowledge, n=14 (23.33%) of them had adequate knowledge. When considering the knowledge score on habits most of the participants n=27 (45.00%) of them had moderate knowledge, n=25 (41.67%) of them had inadequate knowledge, n=8 (13.33%) of them had adequate knowledge.

When considering the overall knowledge score on life style modification most of the participants n=38 (63.33%) of them had inadequate knowledge, n=22 (36.67%) of them had moderate knowledge, n=0 (0%) of them had adequate knowledge.

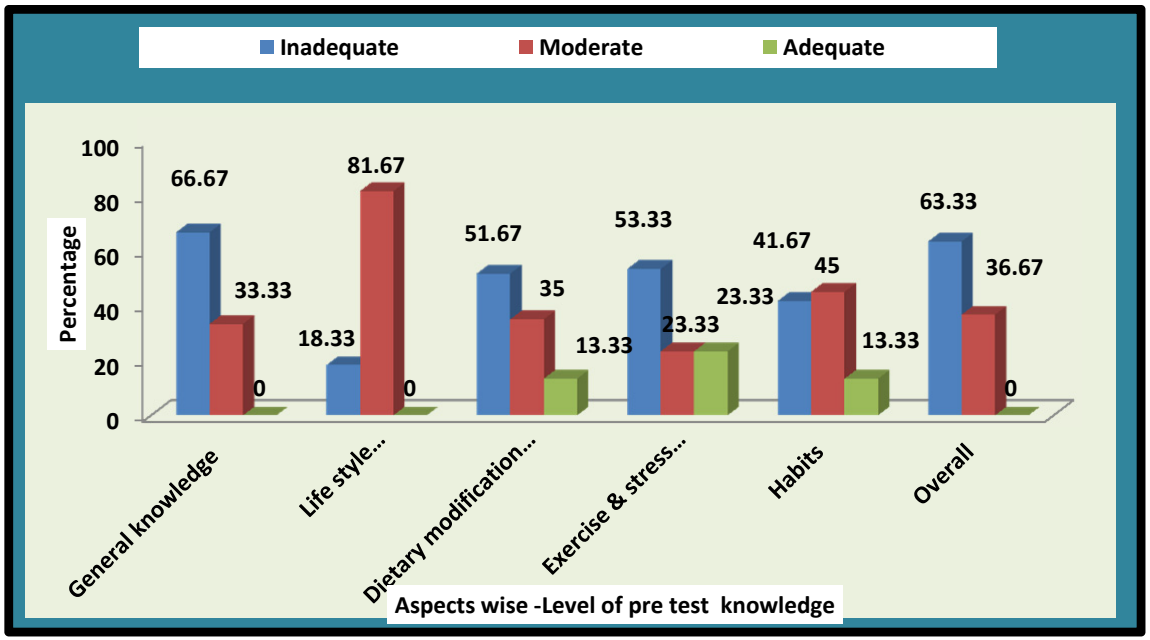


FIGURE- 21 FREQUENCY AND ASPECT WISE PRE INTERVENTIONAL KNOWLEDGE SCORE

SECTION C

TABLE -5

NO OF RESPONDENTS OF POST INTERVENTIONAL KNOWLEDGE SCORE

Level of knowledge	Score	No of Respondents	
		No	%
Inadequate	> 50%	0	0.00
Moderate	50--75%	2	3.33
Adequate	>75%	58	96.67

The above table depicts the number of respondents of post interventional knowledge score on life style modification of cardiac patients. Majority n=58 (96.67%) of the respondents had adequate knowledge, n=2 (3.33%) of the respondents had moderate knowledge and only 0 percentage of the respondents had inadequate knowledge of life style modification after administration of self instructional module.

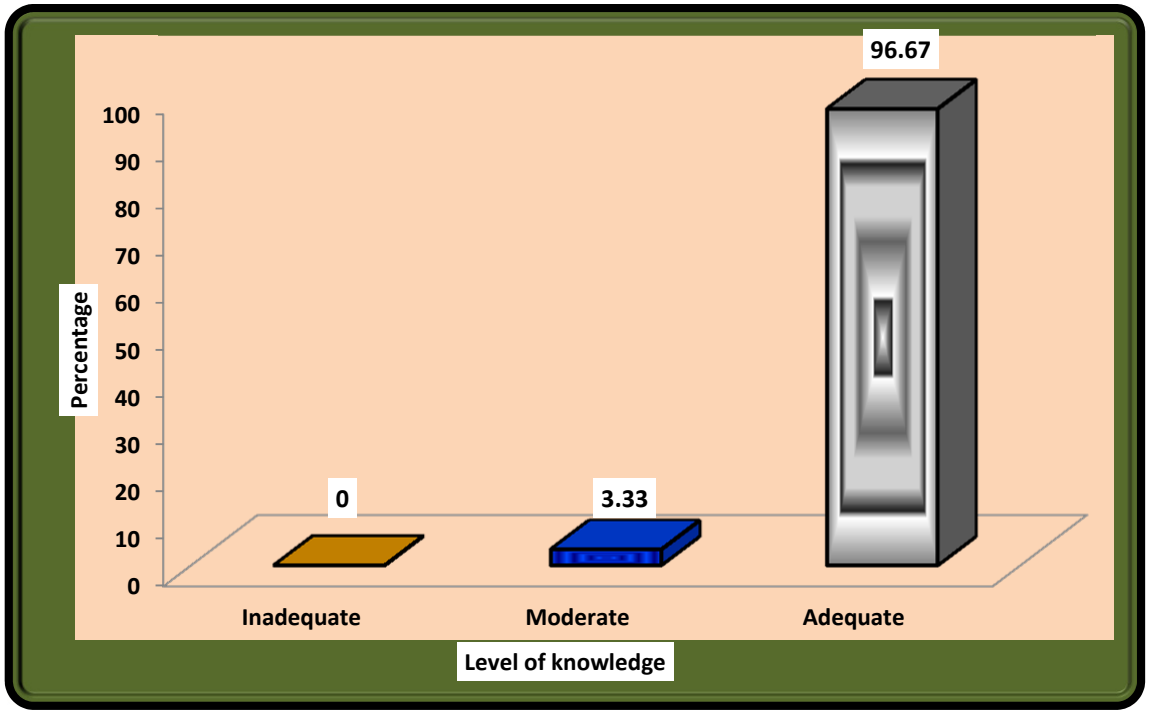


FIGURE 22 FREQUENCIES AND NO OF RESPONDENTS OF POST INTERVENTIONAL KNOWLEDGE SCORE

TABLE -6

ASPECT WISE POST TEST INTERVENTIONAL KNOWLEDGE SCORE

n=60

Aspect wise knowledge	Inadequate (< 50%)		Moderate (50--75%)		Adequate (>75%)	
	No	%	No	%	No	%
General knowledge related to heart disease	0	0	24	40	36	60
General information about Life style modification	0	0	0	0	60	100
Knowledge related to dietary modification & weight loss	4	6.7	13	21.7	43	71.7
Knowledge related to exercise & stress management	0	0	3	5	57	95
Knowledge related to habits	0	0	5	8.3	55	91.7
Overall	0	0	2	3.3	58	96.7

The above table depicts the aspect wise post interventional knowledge score of the respondents based on the test score on general knowledge on cardiac problems in that Majority n=36 (60%) of them respondents had adequate knowledge and n=24 (40%) of the respondents had moderate knowledge and only 0 percentage of the respondents had inadequate knowledge on the topic.

When considering the knowledge score on life style modification all of the participants n=60 (100%) had adequate knowledge.

When considering the knowledge score on dietary modification & weight loss most of the participants n=43 (71.7%) of them had adequate knowledge, n=13

(21.7%) of them had moderate knowledge, n=4 (6.7%) of them had adequate knowledge.

When considering the knowledge score on exercise & stress management most of the participants n=57 (95%) of them had adequate knowledge, n=3 (5%) of them had moderate knowledge, n=0 of them had inadequate knowledge.

When considering the knowledge score on habits most of the participants n=55 (91.7%) of them had adequate knowledge, n=5 (8.3%) of them had moderate knowledge, n=0 of them had inadequate knowledge.

When considering the overall knowledge score on life style modification most of the participants n=58 (96.7%) of them had adequate knowledge, n=2 (3.3%) of them had moderate knowledge, n=0 (0%) of them had inadequate knowledge.

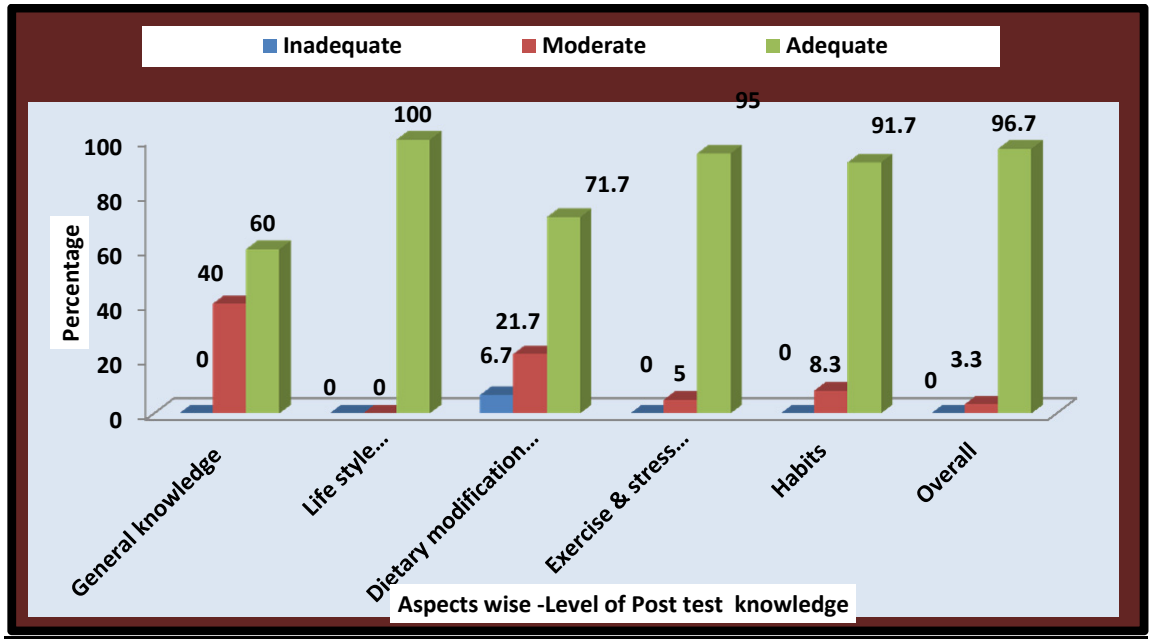


FIGURE 23 FREQUENCY AND ASPECT WISE POST TEST INTERVENTIONAL KNOWLEDGE

SECTION-D

TABLE -7

COMPARISON BETWEEN PRE-TEST AND POST- TEST KNOWLEDGE

n=60

Level of knowledge	Pre test		Post test	
	No	%	No	%
Inadequate (<50%)	38	63.33	0	0
Moderate (50--75%)	22	36.67	2	3.33
Adequate (>75%)	0	0.0	58	96.67

Table reveals comparison of knowledge score between pre-test and post-test. When considering pre test the number of participants n=38 (63.33%) of them had inadequate knowledge, n=22 (36.67%) of them had moderate knowledge, n=0 of them had adequate knowledge before administered self instructional module.

When considering post test knowledge score n=58 (96.67%) of them had adequate knowledge, n=2 (3.33%) of them had moderate knowledge after administered of self instructional module.

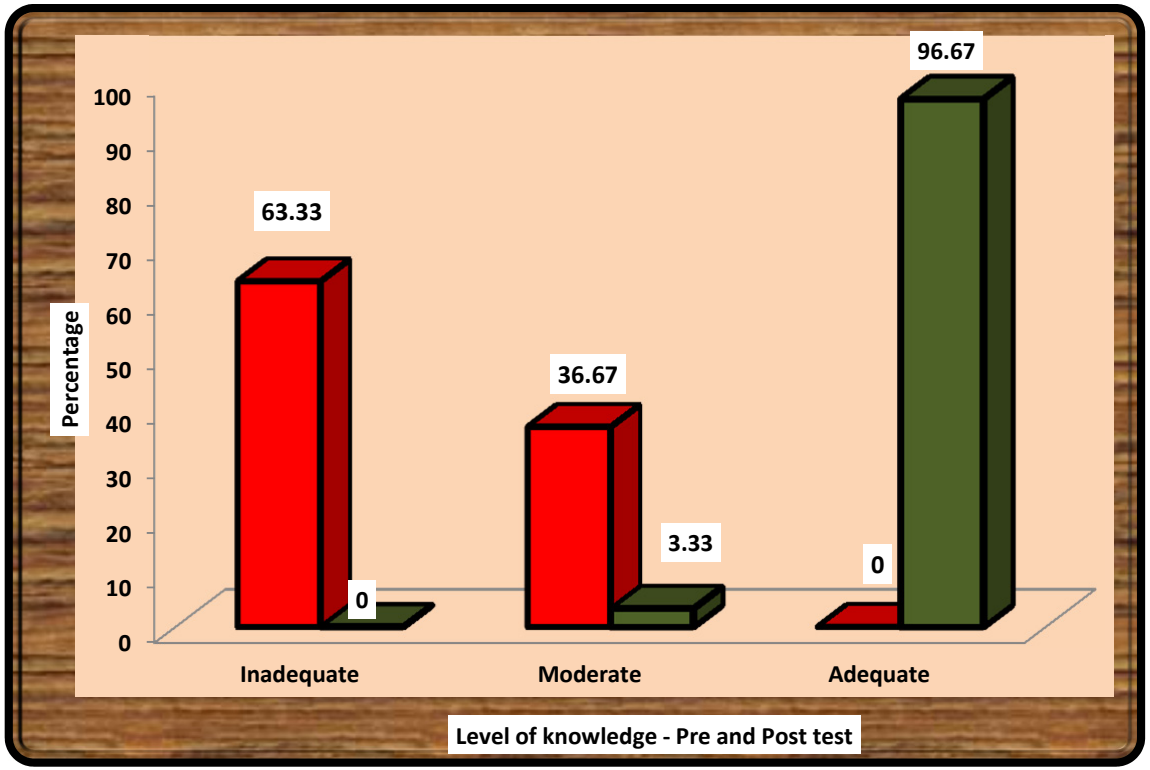


FIGURE 24 COMPARISONS BETWEEN PRE-TEST AND POST- TEST KNOWLEDGE SCORE

TABLE-8

COMPARISON BETWEEN PRE AND POST TEST KNOWLEDGE SCORE

Comparison of mean, SD, and mean percentage for the knowledge variable in the pre and post test.

n=60

Aspect wise knowledge	Pre test			Post test			Enhancement		
	Mean	SD	Mean%	Mean	SD	Mean%	Mean	SD	Mean%
General knowledge related to heart disease	1.81	1.04	30.27	4.71	0.8	78.5	2.9	1.13	48.3
General information about Life style modification	2.98	0.79	49.72	5.35	0.48	89.2	2.37	0.93	39.5
Knowledge related to dietary modification & weight loss	2.56	0.85	51.33	4.18	1.12	83.6	1.62	1.04	32.4
Knowledge related to exercise & stress management	2.13	1.5	42.66	4.76	0.53	95.2	2.63	1.5	52.6
Knowledge related to habits	5.03	2.04	50.33	9.23	0.98	92.3	4.2	1.83	42
Overall	14.53	2.25	45.41	28.25	1.84	88.3	13.72	2.29	42.9

Reveals the status of the patients improved regarding general information about life style modification with the highest mean in post-test (5.35 plus or minus 0.48) mean=89.2% when compared with pre-test (2.98 plus or minus 0.79) mean=49.72%.

The overall improvement with mean score was 28.25 plus or minus 1.84 and mean percentage was M=88.3% in post-test for patients which was higher than the overall mean score 14.53 plus or minus 2.25 and mean percentage was M=45.41% in pre-test. Thus it indicates that there is an enhancement of knowledge among patients about life style modifications.

TABLE -9

COMPARISON OF MEAN, SD, AND MEAN PERCENTAGE FOR THE KNOWLEDGE VARIABLE IN THE PRE AND POST TEST.

Evaluation of the effectiveness of SIM on Life Style Modification for maintaining healthy heart among cardiac patients

n=60

Aspect wise knowledge	Enhancement			Paired 't' test
	Mean	SD	Mean%	
General knowledge related to heart disease	2.9	1.13	48.3	19.87**
General information about Life style modification	2.37	0.93	39.5	19.54**
Knowledge related to dietary modification & weight loss	1.62	1.04	32.4	12**
Knowledge related to exercise & stress management	2.63	1.5	52.6	13.34**
Knowledge related to habits	4.2	1.83	42	17.68**
Overall	13.72	2.29	42.9	46.38**

****Significant at P<0.01 level**

Reveals that the overall improvement in mean score was 13.72, SD=2.29, Mean percentage=42.9 with paired‘t’ value 46.38. The mean post-test knowledge score was significantly higher than the mean pre-test knowledge scores of patients. Effectiveness self instructional module was highly significant at the level of P < .001 level. Thus, the research hypothesis was accepted.

TABLE-10

IMPROVEMENT OF MEAN SCORE OF KNOWLEDGE VARIABLES BETWEEN PRE AND POST TEST.

Domain	Mean	SD	Mean%	paired 't' test
Pre test	14.53	2.25	2.25	46.38**
Post test	28.25	1.84	88.3	

NS= not significant. S= Significant, * p < 0.05 level, ** p < 0.01 level, *** p < 0.001 level.

Depicts Mean, Standard deviation, mean percentage of aspect wise knowledge for patients in pre-test and post-test.

Patients obtained the highest mean in knowledge of life style modification in post-test (28.25 plus or minus 1.84) and mean percentage is 88.3 than compared with pre-test (14.53 plus or minus 2.25) and mean percentage is 2.25.

SECTION-E

TABLE-11

ASSOCIATION OF LEVEL OF KNOWLEDGE ON PATIENTS WITH DEMOGRAPHIC VARIABLES

n=60

S.No	Demographic variables	No	%	Level of Knowledge				Chi square
				< Median (27)		≥Median (33)		
				No	%	No	%	
1	Age							
	a. 26 -35 years	9	15.00	5	18.5	4	12.1	4.32
	b. 36 – 45 years	10	16.67	7	25.9	3	9.1	df 4
	c. 46 – 55 years	26	43.33	10	37.0	16	48.5	N.S
	d. 56 -65 years	8	13.33	3	11.1	5	15.2	
	e. 65 years and above	7	11.67	2	7.4	5	15.2	
2	Gender							
	a. Male	37	61.67	21	77.8	16	48.5	5.4*
	b. Female	23	38.33	6	22.2	17	51.5	df 1 **S**
3	Education							
	a. Non-literate	14	23.33	11	40.7	3	9.1	16.2*
	b. Primary education	12	20.00	8	29.6	4	12.1	df 5
	c. High school	13	21.67	4	14.8	9	27.3	**S**
	d. PUC	10	16.67	2	7.4	8	24.2	
	e. Degree	7	11.67	2	7.4	5	15.2	
	f. Post Graduate	4	6.66	0	0.0	4	12.1	
4	Occupation							
	a. Labourer	26	43.33	14	51.9	12	36.4	3.4
	b. Government employee	10	16.66	2	7.4	8	24.2	df 4
	c. Private employee	13	21.67	6	22.2	7	21.2	N.S
	d. Business	4	6.67	2	7.4	2	6.1	
	e. Others	7	11.67	3	11.1	4	12.1	
5	Religion							
	a. Hindu	36	60.0	11	40.7	25	75.8	8.4*
	b. Christian	6	10.0	3	11.1	3	9.1	df 2
	c. Muslim	18	30.0	13	48.1	5	15.2	**S**
	d. Any other	0	0.0	0	0.0	0	0.0	

6	Marital status							
	a. Married	56	93.33	25	92.6	31	93.9	0.04
	b. Widow (er)	4	6.67	2	7.4	2	6.1	df 1 N.S
7	Type of family							
	a. Nuclear	37	61.67	12	44.4	25	75.8	6.1*
	b. Joined	23	38.33	15	55.6	8	24.2	df 1 **S**
8	Monthly family income							
	a. More than Rs-5000	34	56.67	16	59.3	18	54.5	0.6
	b. Rs.5001-10,000	17	28.33	8	29.6	9	27.3	df 2
	c. >Rs.10,000-20,000	9	15.00	3	11.1	6	18.2	N.S
9	Duration of illness							
	a. 1-3 years	27	45.00	16	59.3	11	33.3	8.4*
	b. 4-6 years	10	16.67	6	22.2	4	12.1	df 3
	c. 7-12 years	11	18.33	3	11.1	8	24.2	**S**
	d. >13years	12	20.00	2	7.4	10	30.3	
10	Type of diet							
	a. Vegetarian	14	23.33	7	25.9	7	21.2	0.18
	b. Non-vegetarian	46	76.67	20	74.1	26	78.8	df 1 N.S
11	Habits							
	a. Alcoholic	21	35.00	16	59.3	5	15.2	15.4*
	b. Smoking/alcoholic	17	28.33	7	25.9	10	30.3	df 3
	c. Tobacco chewing	18	30.00	4	14.8	14	42.4	**S**
	d. No habits	4	6.67	0	0.0	4	12.1	
12	Type of habitat							
	a. Urban	36	60.0	12	44.4	24	72.7	4.9*
	b. Rural	24	40.0	15	55.6	9	27.3	df 1 **S**
13	Medical diagnosis							
	a. Myocardial infarction	42	70.0	16	59.3	26	78.8	
	b. Angina pectoris	18	30.0	11	40.7	7	21.2	

14	No. of admissions in one year							
	a. One time	27	45.00	13	48.1	14	42.4	1.8
	b. 2 times	25	41.67	11	40.7	14	42.4	df 3
	c. 3 times	6	10.00	3	11.1	3	9.1	N.S
	d. More than 3 times	2	3.33	0	0.0	2	6.1	
15	Exposure to type of media							
	a. Television	33	55.00	16	59.3	17	51.5	4.6
	b. News paper	17	28.33	7	25.9	10	30.3	df 3
	c. Magazine	6	10.00	4	14.8	2	6.1	N.S
	d. All of the above	4	6.67	0	0.0	4	12.1	
16	Patients visits physicians for follow-up							
	a. Once in a week	6	10.00	3	11.1	3	9.1	4.97
	b. Once in a month	22	36.67	13	48.1	9	27.3	df 3
	c. Once in 2 month	18	30.00	8	29.6	10	30.3	N.S
	d. As needed	14	23.33	3	11.1	11	33.3	
17	Awareness about lifestyle modification							
	a. Yes	39	65.0	12	44.4	27	81.8	9.1*
	b. No	21	35.0	15	55.6	6	18.2	df 1 S
N.S- Not Significant, *S- Significant at P<0.05 level								

Table-26 shows the association of demographic variables of patients with knowledge score. it reveals that gender of the patients X^2=5.4, education of the patients X^2=16.2, religion of the patients X^2=8.4, type of family of patients X^2=6.1, duration of illness of patients X^2=8.4, type of habits X^2=15.4, type of habitat X^2=4.9 and awareness of illness X^2=9.1 has significant association with chi square test which is highly significant at the level of P<0.05.

Other demographic variables like age of the patients, occupation of the patients, marital status of the patients, monthly family income of the patients, type of diet of the patients, number of admissions in one year, exposure to type of media and patients visits physicians for follow-up showed no significant association with knowledge of patients.

CHAPTER- V

DISCUSSION

CHAPTER-V

DISCUSSION

The present study was conducted to evaluate the effectiveness of self instructional module regarding Life Style Modification among patients those who are admitted in selected hospital, at Madurai.

In order to achieve the objectives of the study, one group pre-test and post-design with non-experimental design was adopted. The sample comprised of 60 patients. The data were collected from them before and after the administration of self instructional module using a self administered questionnaire.

The findings of the study are discussed under the following sections:

Section A:

Findings related to demographic variables of patients.

Section B:

Distribution of Respondents according to their knowledge levels.

Section C:

Aspect wise pre interventional knowledge score

Section D:

Comparison between pre-test and post- test knowledge

Section E:

Association between knowledge score with selected demographic variables.

Findings related to demographic variables of patients.

Findings revealed that the highest 43.33% of belongs to 46 years to 55 years of age, and followed by the age of 36-45 years, majority of the respondents were Males 67% and 23 respondents (38.33%) were Female, 21.67% of the respondents were educated up to high school, followed 20% of the respondents were educated up to primary education,43% of the respondents were lobourer,60% of the participants were hindu, 93.33% of the participants were married people, 61.67% of the participants belongs to nuclear family type,56.67% of the respondents total family income More than Rs-5000, 45% of the respondents had the duration of illness 1-3 years duration, 76.67% of participants were non- vegetarians,35% of them had alcoholic, 30% of them had tobacco chewing, 60% of them belongs to urban area, regarding the medical diagnosis 70.00% of them had myocardial infarction, 45% of them admitted only one time in one year, 55% of them expose to media mainly television only, 36% of them came once in month for visits, 65% of them know about the awareness about life style modifications.

Objectives:

To assess the existing level of knowledge of patients regarding life style modification of cardiac patients.

When considering the overall knowledge score on life style modification most of the participants n=38 (63.33%) of them had inadequate knowledge, n=22 (36.67%) of them had moderate knowledge, n=0 (0%) of them had adequate knowledge.

It was inferred that majority of patients admitted in selected hospital, at Madurai overall there is a need for self instructional module to enhance knowledge on life style modification for maintaining healthy heart among cardiac patients.

- To evaluate the effectiveness of the self instructional module
- Majority 96.67% of the respondents had adequate knowledge, on life style modification after administration of self instructional module.
- To compare the pre and post-test knowledge score after self instructional module
- When comparing pre and post-test knowledge score after administered self instructional module patients knowledge was improved from the 63% to 96%.
- To find out the association of level of knowledge with demographic variables.
- The association of demographic variables of patients with knowledge in chi square score. it reveals that gender of the patients X^2=5.4; education of the patients X^2=16.2; religion of the patients X^2=8.4; type of family of patients X^2=6.1; duration of illness of patients X^2=8.4; type of habits X^2=15.4,;type of habitat X^2=4.9; and awareness of illness X^2=9.1.

Therefore, it was inferred that the socio-demographic factors such as gender, educational status, religion, types of family, type of habitat, duration of illness, type of habit, and awareness about life style modification of the respondents shows there is a significant association level of knowledge with demographic variables ($P < 0.05$).

Other demographic variables like age of the patients, occupation of the patients, marital status of the patients, monthly family income of the patients, type of diet of the patients, number of admissions in one year, exposure to type of media and patients visits physicians for follow-up showed no significant association with knowledge of patients.

SUMMARY

This chapter deals with the analysis of findings of the data collected from 60 patients those who are admitted with cardiovascular disease in selected hospital, at Madurai The data gathered were summarized in the master sheet and both descriptive and inferential statistics were used for analysis. The discussions of the findings were based on the study.

CHAPTER- VI

SUMMARY AND RECOMMENDATIONS

CHAPTER-VI

SUMMARY AND REOMMENDATIONS

SUMMARY

This chapter gives a summary of the study salient features, implications and recommendations of nursing practice, nursing education and nursing research also given addition to the limitation of the study.

India has the highest burden of acute coronary syndromes in the world. Several factors appear likely to have contributed to the acceleration of Coronary artery disease epidemic in India. In the recent times these are demographic transition to an older population as a result of increasing life expectancy, confluence of both conventional risk factors like hypertension, diabetes, hypercholestroleaemia, smoking etc owe their origin to growing urbanization and western "acculturation" amongst Indians and Non-conventional risk factors like hyperinsulinemia, insulin resistance, lipoprotein-A are determined genes. The gravity of this situation is emphasized by a recent projection from the WHO and the Indian council of medical research (ICMR) which predicts that India will be the MI capital of the world 2020.

Most of the patients having cardiac problems are unaware and has inadequate knowledge regarding life style modification. So, this led the investigator for selecting this study.

STATEMENT OF THE PROBLEM

"A study to assess the effectiveness of a Self Instructional Module on knowledge regarding Life Style Modification for maintaining healthy heart among cardiac patients in selected hospital at Madurai".

OBJECTIVES

1. To assess the level of knowledge regarding the life style modification for maintaining healthy heart among cardiac patients.
2. To develop and administer Self Instructional Module regarding the life style modification like, dietary modification & weight loss, Regular physical activity & stress management, and changing or modifying bat habits for maintaining healthy heart among cardiac patients.
3. To evaluate the effectiveness of the Self Instructional Module regarding the life style modification for maintaining healthy heart among cardiac patients.
4. To compare the pre-test and post-test knowledge score after the Self Instructional Module.
5. To find the association between knowledge regarding the life style modification for maintaining healthy heart among cardiac patients with selected demographic characteristics like Age, Sex, Education, Occupation, Marital status, type of family, Income, Duration of illness, Diet, Habits, Number of admission in one year.
6. To find out the association between the mean differences of gain in knowledge regarding the lifestyle modification program

HYPOTHESIS

❖ H_1 – The mean post test knowledge score regarding the life style modification for maintaining healthy heart among cardiac patients will be significantly higher than the pre-test knowledge score.

❖ H_2 – There will be significant association between the mean pre-test knowledge score regarding the life style modification for maintaining healthy heart among the cardiac patients and their selected demographic variables.

CONCEPTUAL FRAME WORK

The conceptual frame work adopted for the study was "Nola J Pender's health promotion model" of nursing and it provided the comprehensive framework for achieving the objectives of the study.

Reviews of related literatures were done through the primary and secondary sources which helped the investigator to collect ideas to support the selected research problem, design, the methodology, conceptual framework and to develop the tool.

The investigator organized the review of literature under the following sections.

1. Literature related to incidence and prevalence of cardiovascular disease
2. Literature related to risk factors of cardiovascular disease
3. Literature related to life style modification

i. Literature related to diet and physical exercise for cardiac patients

ii. Literature related to habits (smoking alcohol and tobacco chewing)

iii. Literature related to stress

In the methodology, the investigator selected non experimental one group pre test post test research design to assess the effectiveness of self instructional module. The sample size was 60 and samples were selected by using probability random sampling technique.

The tool used for data collection was self administered questionnaire and which was used before and after the administration of self instructional module. The tool consisted of 34 items divided under five aspects. Experts, five from medical, three from medical, and one biostatistician validated the tool and the tool was found to be reliable and feasible. The reliability of the tool was confirmed by test the 'r' value obtained was 0.91 which showed reliability.

The pilot study was done prior to the main study and which was conducted among 6 patients with cardiovascular disease admitted in Apollo Hospital at Madurai. A period of two weeks was allotted for conducting the pilot study. After obtaining formal permission from the head of the institution and informed consent from the subjects, the study was conducted. The practicability and feasibility of the pilot study enabled the investigator to proceed to the main study.

The main study was conducted among 60 patients with cardiovascular disease in the ICU of "Apollo hospital", Madurai, during specified four weeks periods. On the first day, pre-test was conducted and followed by that self instructional module was administered to them after 2 days of pre test. After 3 days, a post-test was conducted. The collected data were analyzed and interpreted as per the objectives of the study by using descriptive and inferential statistical methods after careful editing, coding the data's and was transferred to computer, then tabulating and decoding was done.

Major findings of the study were

Findings related to demographic variables of patients regarding life style modification for cardiac patients.

i. Most of the mothers 43.33% were in the age group of 45-55 years.
ii. The majority of the patients 37 (61.67%) belongs to gender group male.
iii. Majority of the patients 13(21.67%) had up to high school education.
iv. Most of the mothers 46(76.7%) were house wives.
v. Majority of patients 26(43.33%) were lobourer
vi. Majority of patients 36(60%) were Hindus
vii. Majority of patients 56(93.33%) were married
viii. Majority of patients (60.61%) were nuclear family
ix. Majority of patients 34 (56.67%) income of more than Rs.5000

x. Majority of patients 46(76.67%) were non vegetarians

xi. Most of the patients 21(35%) were alcoholic.

xii. Majority of patients 36(60%) were belongs to urban area.

xiii. Most of the patients 42(70%) had myocardial infarction.

xiv. Majority of the patients 27 (45%) were admitted only one time per year

xv. Most of the patients 33 (55%) exposed to media

xvi. Majority of patients 22 (36.67%) come for follow-up visits.

To assess the existing level of knowledge of patients regarding life style modification of cardiac patients.

When considering the overall knowledge score on life style modification most of the participants n=38 (63.33%) of them had inadequate knowledge, n=22 (36.67%) of them had moderate knowledge, n=0 (0%) of them had adequate knowledge.

It was inferred that majority of patients admitted in Apollo hospital, at Madurai; overall there is a need for self instructional module to enhance knowledge on life style modification for maintaining healthy heart among cardiac patients.

- **To evaluate the effectiveness of the self instructional module**

Majority 96.67% of the respondents had adequate knowledge, on life style modification after administration of self instructional module.

- **To compare the pre and post-test knowledge score after self instructional module**

When comparing pre and post-test knowledge score after administered self instructional module patients knowledge was improved from the 63% to 96%.

- **To find out the association of level of knowledge with demographic variables.**

The association of demographic variables of patients with knowledge in chi square score. it reveals that gender of the patients X^2=5.4; education of the patients X^2=16.2; religion of the patients X^2=8.4; type of family of patients X^2=6.1; duration of illness of patients X^2=8.4; type of habits X^2=15.4,;type of habitat X^2=4.9; and awareness of illness X^2=9.1.

Therefore, it was inferred that the socio-demographic factors such as gender, educational status, religion, types of family, type of habitat, duration of illness, type of habit, and awareness about life style modification of the respondents shows there is a significant association level of knowledge with demographic variables ($P < 0.05$).

Other demographic variables like age of the patients, occupation of the patients, marital status of the patients, monthly family income of the patients, type of diet of the patients, number of admissions in one year, exposure to type of media and patients visits physicians for follow-up showed no significant association with knowledge of patients.

CONCLUSION

The aim of the "study to assess the effectiveness of Self Instructional module on knowledge in on lifestyle modification among cardiac patients to maintain healthy heart in selected hospital, at Madurai."

The present study assesses the knowledge of patients regarding life style modification for cardiac patients. The study concluded saying that there was significant improvement in subject knowledge in the post-test after administration of

self instructional module. Thus, SIM was found effective in improving the knowledge of patients regarding life style modification for cardiac patients. In the present study it was also found that there is a significant association of knowledge level with selected demographic variables such as age, gender, educational status, type of family type habitat, type of deit, duration of illness.

Nursing Implications

The nurse's role may be essentially unchanged or it may entail different duties by possessing and practicing competencies making nurses better prepared to handle all types of diseases. The investigator has drawn the following implications in the field of nursing education, nursing service, nursing administration and nursing research.

Nursing Practice

Nurses are key personnel of a health team, who play a major role in the health promotion and maintenance. Nursing is a practicing profession so, the investigator, generally integrates findings into practice.

1. Any form of education like continuing education, learning materials such as self instructional booklet or self instructional module will enhance quick reference and knowledge in practice.
2. Nurses can conduct teaching sessions for patients during their hospital stay and during their visits to the hospital which will help in improving the knowledge of nurses as well as the patients on knowledge of life style modification for cardiac patients.
3. Nurses, being the key member of the health team have a vital role to play in handling the situation with competencies at the site of caring, reducing and managing the further risk factors of cardiac problems.

Nursing Administration

Staff development program in any organization is the prime responsibility of the nurse administrator. In the era of development of advanced technology, demand for quality and competent care, improved awareness on dignity of life, all poses a challenge to nurse administrators to demonstrate their efficiency in providing education to the patients with cardiac problems on life style modification.

1. The nurse administrator should assume leadership roles in training and providing health education programmes to nursing professional, paramedical staffs including grass root level workers in health care settings by making use of media and audio visual aids.
2. Nurse administrator should facilitate funding to have adequate number of books and journals in the library related to care of lifestyle modification.

Nursing Education

It emphasis that adequate knowledge owned by the nurses may help to update themselves on the recent advancements, which in turn helps the nurses to give health education for the patients on life style modification to follow prior instructions and precautions in early identification and prevention of complications and also to improve the health. In order to achieve this, the Diploma as well as Degree curriculum should have adequate chapters on care and cure aspects of life style modification for cardiac patients.

1. Student nurses should be provided awareness on various aspects of life style modification for cardiac patients with complications which arise due to lack of care.

2. The student nurses from School of nursing and College of nursing should be encouraged to attend for specialized courses and seminars regarding life style modification for cardiac patients.
3. There must be adequate teaching strategies such as demonstration, simulation exercises conducted to the students by making use of video films, computer based teaching and learning on life style modification for cardiac patients.
4. Topics on life style modification can be included in continuing education programmes for the student nurses.

Nursing Research

Nursing research is the means by which nursing profession is growing; more research should be done related to life style modification in order to prevent the complications and reduce the mortality and morbidity rate of cardiac problems. Dissemination of findings through conference and professional journals will make application of research findings to be effective.

1. There is a need for extensive and intensive research in this area so that strategies for educating nurses and the patients on life style modification can be developed.
2. This study will serve as a valuable reference material for future investigators.

Limitations

1. The study is limited to the cardiac wards or ICUs or the selected hospital.
2. Patients who are admitted to cardiac wards or ICUs with cardiac problems like myocardial infarction and angina pectoris.
3. Assessment is limited only to the patients who are having myocardial infarction, angina pectoris.

4. This study is limited to the patients with the CAD who are willing to participate in the study.
5. Cardiac patients who all are can able to read & write English and Tamil

Recommendations

On the basis of the study that had been conducted, certain suggestions are given for future studies.

1. Replication of this study can be done with larger samples in different settings to validate and generalize the findings.
2. Similar study could be conducted on attitude and practice of patients regarding life style modification.
3. The same study can be conducted with an experimental research approach having a control group
4. A comparative study can be done to assess the effectiveness of care of patients in home setting (out patient i.e., Cardiac Rehabilitation) and hospital setting (inpatient).
5. Alternative teaching strategies like interactive learning sessions, structured teaching programme etc can be conducted and evaluated.

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APPENDICES

APPENDIX- I

SAKTHI COLLEGE OF NURSING

(Approved by Govt. of Tamilnadu, Recognised by INC, TNC & Affiliated to Dr. M.G.R. Medical University)

Sakthi Nagar, Dindigul - Palani Main Road,
Palakkanuthu - (Po.),
Oddanchatram - 624 619.
Dindigul (Dt.), Tamilnadu.

Phone : 0451 - 2050272
Mobile : 97509 56810
Fax : 0451-2554317
E-mail : sakthinursingcollege@gmail.com

PERMISSION LETTER

From

The Principal,
Sakthi College of Nursing,
Oddanchatram, Dindigul (Dt)

To

The Medical Officer
Apollo Hospital,
Madurai.

Respected Sir / Madam,

Sub.: Request for permission to conduct research study – reg.

MR. MARTIN DANIEL .P is a bonafide M.Sc., Nursing student studying in our college. As a partial fulfillment of The Tamilnadu Dr. MGR Medical University requirement for the award of the M.Sc., Nursing Degree, he is undertaking (**"A STUDY TO ASSESS THE EFFECTIVENESS OF A SELF INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING LIFE STYLE MODIFICATION FOR MAINTAINING HEALTHY HEART AMONG CARDIAC PATIENTS IN SELECTED HOSPITAL AT MADURAI"**), he has identified your centre as the best place to conduct the study.

Further details of the proposed project will be furnished by the student personally. He will not hinder your routine in any way and he will abide to the rules and regulations of the institution. All the information collected from institution will be kept confidential.

I kindly request you to grant him permission to conduct the study at your esteemed institution.

Thanking you,

Yours sincerely,

Date :

Place :

APOLLO SPECIALITY HOSPITALS K.K. NAGAR MADURAI-20

Dr. RAMESH BABU KESAVAN, M.D.,
Intensivist
Reg. No. 52759
APOLLO SPECIALITY HOSPITALS
MADURAI-625 020

PRINCIPAL
Sakthi College of Nursing
Sakthi Nagar, Palakkanuthu
Dindigul - (Dist)
624 624

APPENDIX- II

CONTENT VALIDITY

From

Mr.Martin Daniel,
M.Sc Nursing II[nd] Year,
Sakthi College of Nursing.
Oddanchatram, Dindigul.

To
Respected Sir / madam,

Sub:-Requisition from expert opinion and content validity reg.

I am II year MSc Nursing student, studying in Sakthi College of Nursing Oddanchattram, Dindigul under Tamilnadu Dr.MGR Medical University.

As a partial fulfillment of M.Sc Nursing Degree program, I am conducting a research study "A study to assess the effectiveness of a self instructional module on knowledge regarding life style modification for maintaining healthy heart among cardiac patients in seleted hospital at madurai.

I am sending the research tool for content validity and request you to give your expert and valuable review and opinion. I will be very thankful if you return at the earliest. Here with I have enclosed the necessary documents.

Thanking you.

Yours Sincerely.

Date: 7-8-2015

(Mr.Martin Daniel)

Place : Oddanchatram

Enclosed:

Statement of the problem and objectives of the study.

Tool with blueprint and scoring key.

Brief note on the research Methodology and intervention tool.

Certificate of content validity.

APPENDIX -III

CERTIFICATE OF CONTENT VALIDITY

TO WHOM SOEVER IT MAY CONCERN

This is to certify that the tool prepared by **Mr.Martin Daniel. P** M.Sc(N) II year student of Sakthi College of Nursing for the conduction of the study. **"A study to assess the effectiveness of a self instructional module on knowledge regarding life style modification for maintaining healthy heart among ardiac patients in selected hospital at madurai"** is valid. He can proceed in conducting the data collection with it.

Place:

Date: **Signature**

APPENDIX –IV

LIST OF EXPERTISE

1.Dr.Ramesh Babu Kesavan M.D

Apollo hospitals,

Madurai-62520.

2.Prof.janahi Devi,Msc(nsg)

Principal,

Sakthi College of Nursing,

Oddanchatram.

3.Prof.Dr.Radha.Msc(nsg)

Department of Medical Surgical Nursing,

Aruna college of nursing,

Vellore.

4.Asso.prof.Kalpana Msc(Nsg)

Department of Medical & Surgical Nursing,

Bishop's College of Nursing,

Dharapuram.

5.Dr.Muthuramalingam, M.S ,

Subam Hospital,

Nagercoil.

K.K District.

6.Dr.Bensam ,M.S, F.R.C.S,

Bensam hospital,

Nageroil,

K.K.Distrit.

7.Mr.mani Msc.Phil,

Statistiian,

Madurai.

APPENDIX -V

CERTIFICATE FOR TAMIL EDITING

TO WHOM SOEVER IT MAY CONCERN

This is to certify that the dissertation fitted "**A study to assess the effectiveness of a self instructional module on knowledge life style modification for maintaining healthy heart among cardiac patients in selected hospital at Madurai.**" By **Mr.Martin Daniel. P** M.Sc(N) II Year student of Sakthi College of Nursing was edited for Tamil Language appropriateness by **Mr.V.Sakthivel, M.A,.B.Ed**.,**A.M.A.,** Vice Principal, Sakthi College of Arts and Science.

APPENDIX -VI

CERTIFICATE FOR ENGLISH EDITING

TO WHOM SOEVER IT MAY CONCERN

This is to certify that the dissertation fitted "**A study to assess the effectiveness of a self instructional module on knowledge life style modification for maintaining healthy heart among cardiac patients in selected hospital at Madurai.**" By **Mr.Martin Daniel. P,** M.Sc(N) II Year student of Sakthi College of Nursing was edited for English Language appropriateness by **Ms.Sathiya, M.A.,M.Phil.,M.B.A.,** HOD of English Department, Sakthi College of Arts and Science.

Signature

Sakthi College of Arts and Science for Women
Sakthi Nagar, Palakkanuthu (Po),
Oddanchatram - 624 619, Dindigul Dist.

APPENDIX VII

TOOL FOR THE STUDY

Self –administered questionnaire to assess the knowledge of Life Style Modification for maintaining healthy heart among cardiac patients in selected hospitals at Madurai

INTRODUCTION:

The tool has two sections

Section A:

It consist of demographic data which gives base line information of the patients with the CAD such as age, sex, religion, education, occupation, family income, marital status, type of family etc.

Section B:

It consists of self-administered questionnaire to assess the knowledge regarding the Life Style Modifications for maintaining healthy heart among cardiac patients in selected hospitals at Bangalore.

It mainly consists of five parts

Part I: General knowledge related to heart disease

Part II: General information about Life style modification

Part III: Knowledge related to dietary modification & weight loss

Part IV: Knowledge related to exercise & stress management

Part V: Knowledge related to habits

SECTION- A

Demographic data

CODE NO:

1. Age

   a) 26 years to 35 years

   b) 36 years to 45 years

   c) 46 years to 55 years

   d) 56 years to 65 years

   e) 65 years and above

2. Gender

   a) Male

   b) Female

3. Education

   a) Non-Literate

   b) Primary education

   c) High school

   d) PUC

   e) Degree

   f) Post Graduate & above

4. Occupation

   a) labourer

   b) Government employee

   c) Private employee

   d) Business

   e) others

5. Religion

   a) Hindu

   b) Christian

   c) Muslim

   d) Any other

6. Marital status

   a) Married

   b) Unmarried

   c) Widow

   d) Sep/divorced

7. Type of family

   a) Nuclear

   b) Joint

   c) Extended

8. Monthly family income

   a) Less than Rs-5000

   b) Rs. 5001-10,000

   c) Rs.10,000-20,000

   d) More than Rs. 20,000

9. Duration of illness

   a) 1-3 years

   b) 4-6years

   c) 7-12 years

   d) 13-years & above

10. Type of diet

a) Vegetarian

b) Non-vegetarian

11. Habits

a) Alcoholic

b) Smoking

c) Tobacco chewing

d) No habits

12. Type of habitat

a) Urban

b) Rural

13. No. of admissions in one year

a) One time

b) 2 times

c) 3 times

d) More than 3 times

14. Exposure to type of media

a) Television

b) News paper

c) Magazine

d) Internet/health care provider

e) All of the above

15. Patient visits physicians for follow-up

    a) Once in a week

    b) Once in a month

    c) Once in 2 month

    d) As needed

16. Awareness about lifestyle modification

    a) Yes

    b) No

17. Medical diagnosis

    a) Myocardial infarction

    b) Angina pectoris

SECTION-B

ASSESSMENT OF KNOWLEDGE ON LIFE STYLE MODIFICATION AMONG CARDIAC PATIENTS IN SELECTED HOSPITAL AT MADURAI

Part I: General knowledge related to heart disease

Part II: General information about Life style modification

Part III: Knowledge related to dietary modification & weight loss

Part IV: Knowledge related to exercise & stress management

Part V: Knowledge related to habits

PART-I

GENERAL KNOWLEDGE RELATED TO HEART DISEASE

1. What is mean by cardiovascular disease

   a) Affects the heart, arteries & veins,

   b) Affects the brain

   c) Affects the kidney,

   d) Affects the liver

2. Symptoms of heart diseases can include

   a) Dizziness, weakness, arm pain, pressure in the chest.

   b) Back pain, giddiness, sweating, fever

   c) Nausea, vomiting, stomach pain

   d) Leg pain, swelling in the leg

3. Risk for heart disease include

   a) Low-cholesterol level

   b) Peptic ulcer

   c) Low blood sugar level

   d) High Blood Pressure & High Cholesterol

4. What is mean by Myocardial Infarction

   a) Heart failure

   b) Heart attack

   c) Brain aneurism

   d) Peptic ulcer

5. Angina pectoris means

   a) Fever

   b) Vomiting

   c) Pain

   d) Head ache

PART-II

GENERAL INFORMATION ABOUT LIFE STYLE MODIFICATION

6. What are the life style modifications important for cardiac patient?

   a) Tobacco chewing

   b) Intake of fatty diet

   c) Intake of alcohol

   d) Diet and regular physical exercise

7. What are the benefits of life style modifications?

   a) Reduce the risk factors of Tuberculosis (TB)

   b) prevent ulcer and stomach cancer

   c) Reduce the risk of cancer

   d) It reduce the risk of further heart disease event

PART-III

PATIENTS KNOWLEDGE REGARDING DIETARY MODIFICATION & WEIGHT LOSS

8. A healthy diet is important because

   a) It maintain health

   b) It prevent migraine

   c) To reduce headache

   d) To reduce stomach pain

9. What type of diet is good for cardiac patient?

   a) Healthy diet

   b) Solid diet

   c) Low protein diet

   d) Semi-solid diet

10. Which of the following oil is best for cardiac patients?

   a) Ground nut oil

   b) Pure ghee

   c) Olive oil

   d) Coconut oil

11. Egg yolk contains

a) 50-90 mg of cholesterol

b) 100-150 mg of cholesterol

c) 225-300 mg of cholesterol

d) 400-500 mg of cholesterol

12. Cardiac patients can consume

a) 1 egg per day

b) 2 egg per day

c) 4 egg per day

d) No egg should be consumed

13. The following items are rich in cholesterol

a) Meat & egg

b) Ghee & vanaspathi

c) Cereals & pulses

d) A & b

14. The heart healthy diet are

a) Fruits & Vegetables

b) Grains

c) Low fat or Non-fatty dairy products

d) Fish

e) Legumes

f) All of the above

15. The following food items can be permitted to cardiac patient

a) Fresh fruits & vegetables

b) Egg & meat

c) Fried chicken

d) Butter

16. Diet used for cardiac patients to reduce constipation & maintain Bp is

a) High-caloric diet

b) High-fiber & low-salt diet

c) High-sugar diet

d) High-salt diet

17. Benefits of weight loss

a) Increase the blood sugar level,

b) Lower the cholesterol level,

c) Reduced risk of gastritis

d) Reduce the risk of cancer

18. The weight of cardiac patients should be checked

a) Daily

b) Weekly

c) Monthly

d) Quarterly

PART-IV

PATIENTS KNOWLEDGE REGARDING EXERCISE & STRESS MANAGEMENT

19. Exercise is important for cardiac patients

    a) It reduce the leg pain

    b) It reduce the swelling

    c) It improve the circulation

    d) It increase the blood sugar level

20. The regular physical activity helps to

    a) Prevent obesity

    b) Reduce the swelling

    c) Reduce stress

    d) Reduce back pain

21. What are the exercises is needed for cardiac patients?

    a) Over Muscle stretching

    b) Heavy weight bearing exercises

    c) Jogging, jumping, lifting heavy objects

    d) Running, walking, climbing stairs

22. When the cardiac patients start to do exercise?

    a) Either before or after work

    b) After meals

    c) Before dinner

    d) After breakfast

23. Which of the following activity should be avoided by cardiac patients?

a) Running

b) Regular physical activity

c) Irregular physical activity

d) Brisk walking

24. Cardiac patient should take rest

a) After meals

b) After exercise

c) After strenuous work

d) After dinner

25. Cardiac problems are common in

a) Over active people

b) Inactive & obese persons

c) Malnurised person

d) Poor people

26. The following techniques can reduce stress & emotion

a) Relaxation by listening music, reading magazine & exercise

b) Taking medication

c) Drinking alcohol

d) Smoking

27. Patients with cardiac problems should avoid the following situation

a) The work which creates mental agitation & tension

b) The situation which creates happiness

c) The situation which creates encouragement

d) Calm & quit environment

PART-V

PATIENTS KNOWLEDGE REGARDING HABITS

28. Cardiac patients should avoid the following habit

a) Smoking & tobacco chewing

b) Listening music

c) Reading magazine

d) Playing Games

29. Cardiac patients those who are addicted to alcohol should

a) Moderate the alcohol consumption

b) Completely stop alcohol consumption

c) Occasionally stop alcohol consumption

d) Can drink to tolerance

30. What are the benefits of moderate alcohol consumption?

a) Reduce your risk developing heart disease

b) Reduce your risk of dying of a HIV

c) Reduce your risk of cancer in uterus,

d) Reduce your ulcer

31. Which of the following alcohol drink should be avoided by cardiac patients?

a) Wine

b) Beer

c) Whisky

d) Fresh juice

32. How much alcohol is safe for cardiac patients?

a) 1 drink for male & 2 drink for female per day

b) 3 drink per day

c) 2 drink per day

d) 1 drink per day

33. Cardiac patients with smoking habits should

a) Completely stop smoking

b) Partially Stop smoking

c) Occasionally smoke

d) Can smoke to tolerance

34. What are the health benefits of quitting smoking?

a) Prolong your life

b) Reduce your risk of cardiovascular disease

c) Reduce your risk of developing a variety of other conditions

d) Improve your sense of taste & smell

e) All of the above

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தனி நபர் பற்றிய நேர் கானல் படிவம்
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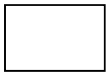

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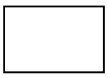

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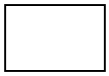

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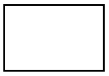

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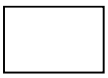

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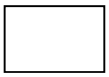

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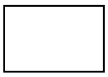

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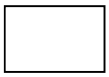

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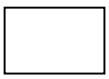

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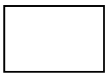

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À¡Å-¬-Å¡úì¨¸Á¡üÈò¨¾ôÀüÈÂ¦À¡Ð «È×

À¡×-þ-¯½×ÀÆì¸ò¨¾ÀüÈÂ¦À¡Ð «È×

À¡×-®-¯¼üÀÂüº¨ÂÀüÈÂ¦À¡Ð «È×

À¡×-¯-ÀÆì¸ÅÆì¸í¸¨ÇÀüÈÂ «È×

À¡×-«
þÕ¾Â §¿¡¨ÂôÀüÈÂ¦À¡Ð «È×

1. þÕ¾Â §¿¡ö±ýÈ¡ø±ýÉ?

   «)þ¾Âõ ÁüÚõ º¨Ã¿¡Çí¸ûÀÃîº¨É

   ¬)ã¨Ä¨Â¾¡ìÌÅÐ

   þ)º Ú¿Ã¸ò¨¾ôÀ¡¾ôÀÐ

   ®)¸øÄÃ¨ÄÀ¡¾ôÀÐ

2. þÕ¾Â §¿¡Â ý «È ÌÈ¸ûý É?

   «)6Ì¸õ ÅÄ, þÕ¾Â «Øò¾õ

   ¬)ÓÐ Ì ÅÄ, ÁÂì¸õ,Å Â÷¨Å,¸¡öîºø

   þ)Å¡ó¾, ÅÂ ÚÅÄ

   ®)¸¡øÅÄ, ¸¡ø Å í Ì ¾ø

3. þÕ¾Â §¿¡Â ý ãÄì¸¡Ã½í¸û

   «)Ì¨Èó¾Àðºõ¦¸¡ØôÒ¿¨Ä

   ¬)ÅÂüÚôÒ ñ

   þ)Ì¨Èó¾ º÷ì¸¨Ã¿¨Ä

   ®)¯Â÷ þÃò¾ «Øò¾õ «¾¸ôÀÊÂ¡É¦¸¡ØôÒ¿¨Ä

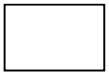
4. þ¾Â ¾ ¨ º « ¾÷î º ± ý È¡ ø ± ý É?

«) þ Õ¾Â ¦ ºÂÄ Æôò

¬) þ ¾Â « ¾÷î º

þ) ã ¨ Ç Í Æü î º

®) ÅÂ üÚôò ñ



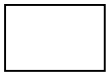
5. þ¾Â « ¨¼ôò ± ý È¡ ø ± ý É?

«) ¸¡ ö î º ø

¬) Å¡ ó¾

þ) ÅÄ

®) ¾ ¨ ÄÅÄ



À ¡ × - ¬

Å¡ ú ì ¨ ¸ ÀüÈ Â « È ×

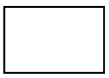
6. þ Õ¾Â §¿¡Â¡Ç ¸ Ù ì Ì Ó ì ¸ ÂÁ¡ É Å¡ ú ì ¨ ¸ Ó ¨ È

«) Ò ¨ ¸ Â ¨ Ä Í ¨ ÅôÀÐ

¬) « ¾ ¸ ôÀÊÂ¡ É ¦ ¸ ¡ ØôÒ ¯ ð ¦ ¸ ¡ û ÅÐ

þ) ÁÐ « ÕóÐÅÐ

®) Ó ¨ ÈÂ¡ É ¯¼üÀÂ ü º ÁüÚõ ¯ ½ ×



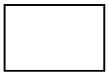
7. Å¡ ú ì ¨ ¸ Ó ¨ È Á¡ üÈò¾ ý ÀÄ ý ¸ û

«) ¸¡ º § ¿¡ Â ý ¸¡ Ã½ ¸ ¨ Ç Ì ¨ ÈôÀÐ

¬) ÅÂ üÚôò ñ ÁüÚõ ÒüÚ § ¿¡ ö ¾ Î ôÀÐ

þ) ÒüÚ § ¿¡ ö Ì ¨ ÈôÀÐ

®) þ ¾Â § ¿¡ ö ¸¡ Ã½ ¸ ¨ Ç Ì ¨ ÈôÀÐ



À¡t×-þ

±¨¼Ì¨È× ¯½ ×ôÀÆì¸Å¡úì¨¸Ó¨È «È×õ ÁüÚõ

§¿¡Â¡Çt¸Ùõ

8. ¬ §Ã¡ì¸tÂÁ¡É ¯½ × Óì¸tÂõ ²¦É Ét ø

«)¯¼ø¿t¨Ä º Ã¡¸ ¨ ÅôÀ¾ü Ì

¬)¾¨ÄÅÄt¨Â ¾ Î ôÀ¾ü Ì

þ)´ü¨È ¾¨ÄÅÄt¨Â Ì ¨ÈôÀ¾ü Ì

®)ÅÂtüÚÅÄt¨Â Ì ¨ÈôÀ¾ü Ì

9. þÕ¾Â §¿¡Â¡Çt¸Ùì Ì ²üÈ ¯½ × ±ý É?

«)¬ §Ã¡ì¸tÂÁ¡É ¯½ ×

¬)¾t¼ ¯½ ×

þ)Ì ¨Èó¾ ÒÃ¾ ¯½ ×

®)¾tÃÅ,¾t¼ ¯½ ×

10. þÕ¾Â §¿¡Â¡Çt¸Ùì Ì ²üÈ ± ñ ¦½ ö

«)¸¼¨Ä ± ñ ¦½ ö

¬)¦¿ö

þ)¬ Ätù ± ñ ¦½ ö

®)§¾í¸¡ö ± ñ ¦½ ö

11. Óð¨¼ ¸Õ ¯ûÇ¼ì¸tÂÐ

«)50-90Átø Ät¸tÃ¡õ ¦¸¡ØôÒ

¬)100-150 Átø Ät¸tÃ¡õ ¦¸¡ØôÒ

þ)225-300 Átø Ät¸tÃ¡õ ¦¸¡ØôÒ

®)400-500 Átø Ät¸tÃ¡õ ¦¸¡ØôÒ

12. þÕ¾Â §¿¡Â¡Çt¸Ùì Ì ²üÈÐ

«)¸Õ Óð¨¼/1¿¡û

¬)2Óð¨¼/1¿¡û

þ)4. Óð¨¼/1¿¡û

®)Óð¨¼ ± Î òÐì¦¸¡ûÇì Ü¼¡Ð

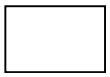
13. ¦¸¡ØôÒ «¾¸õ ¯ûÇ ¯½×

«)Á¡Á°õ ÁüÚõ Ó𨼠

¬)¦¿ö ÁüÚõ ÅÉŠÀ¾

þ)¾¡É¢Âí¸û ÁüÚõ ÀÂ¢Ú¸û

®) « ÁüÚõ ¬



14. ¬§Ã¡ì¸¢ÂÁ¡É ¯½×

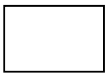
«)¸¡ö¸û ÁüÚõ ÀÆí¸û

¬)¾¡É¢Âí¸û

þ)Ì ¨Èó¾ ¦¸¡ØôÒ

®)Á¢ý¸û

¯)§ÁüÜÈ¢Â¨Å «¨ÉòÐõ



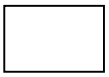
15. ¸¦§Æ ÜÈ¢Â ¯½× Å¨¸¸û þÕ¾Â §¿¡Â¡Ç¢¸û ±Î òÐì ¦¸¡ûÇÄ¡õ

«)¸¡ö ÁüÚõ ÀÆí¸û

¬)Á¡Á°õ ÁüÚõ Ó𨼠

þ)¦À¡È¢ò¾ §¸¡Æ¢

®)¦Å ñ ¦½ö



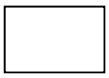
16. þÕ¾Â §¿¡Â¡Ç¢Â¢ý ¯½×¸û ÁÄîº¢ì¸¨Ä Ì¨Èì¸

«)«¾¸ ±¡¢º ì¾¢ÔûÇ (« øÄÐ) ¬üÈ¨Ä ¾Õ¸¢ýÈ ¯½×

¬)«¾¸ ¿¡÷ºòÐ

þ)«¾¸ þÉ¢ôÀ¡É ¯½×

®)¯ôÒ ºòÐ ¿¢¨Èó¾ ¯½×



17.± ¨¼ì Ì ¨ ÈôÀ¾ý ÀÄý

«)þÃò¾ò¾Öûç º÷ì¸¨Ã «ç¨ Å¯Â÷òÐ¾ø

¬)¦¸¡ØôÀý «ç¨ Å¯Â÷òÐ¾ø

þ)ÅÂüÚ ÍÆüº¨ Â Ì ¨ ÈôÀÐ

®)ÒüÚ§¿¡¨ Â ¾ Î ôÀÐ

18.± ¨¼¨ ÂÀ¡§º¡¾¨ É ¦ºöÐ¦¸¡ûç §Å ñ Î õ

«)¾É Óõ

¬)Å¡Ã¡Å¡Ãõ

þ)Á¡¾ó§¾¡Úõ

®)ÅÕ¼ò¾ü Ì ¿¡ý Ì ¾¼¨ Å

À¡×-®

¯¼üÀÂüº¨ Â ÀüÈÂ «È×

19.¯¼üÀÂüº¨ Â þÕ¾Â §¿¡Â¡Ç¸ Ù ì Ì «Åº ÂÁ¡É Ð

«)¸¡øÅÄ¨ Â Ì ¨ ÈôÀ¾ü Ì

¬)Å¡ì¸ò¨¾ Ì ¨ ÈôÀ¾ü Ì

þ)þÃò¾ µð¼ò¨¾ º¡Ã¡ì Ì Å¾ü Ì

®)þÃò¾ò¾ý º÷ì¸¨Ã «ç¨ Å¯Â÷òÐ¾ø

20.Ó¨ ÈÂ¡É ¯¼üÀÂüº¯¾×¸ý ÈÐ

«)¯¼ø ÀÕÁý Ì ¨ ÈôÀ¾ü Ì

¬)Å¡ì¸ò¨¾ Ì ¨ ÈôÀ¾ü Ì

þ)ÁÉ «Øò¾ò¨¾ Ì ¨ ÈôÀ¾ü Ì

®)ÓÐ Ì ÅÄ¨ Â Ì ¨ ÈôÀ¾Ü ì

21.±ó¾ Å ¨ ¸Â¡É ¯¼üÀÂ¢üº¢ þ¾Â §¿¡Â¡Ç¢¸ Ù ì Ì §¾¨ ÅÂ¡ÉÐ

«) « ¾¢¸ôÀÊÂ¡É ¾¨ º ¾¢Èú×

¬) « ¾¢¸ôÀÊÂ¡É ±¨¼ à ì Ì ÅÐ

þ)¿¨¼ÀÂ¢üº¢, Ì ¾¢ôÀÐ ÁüÚõ à ì Ì ÅÐ

®)µ Î ÅÐ,¿¼ôÀÐ ÁüÚõ Á¡ÊôÀÊ¸Ç¢ø ²ÚÅÐ

22.±ô¦À¡ØÐ ¯¼üÀÂ¢üº¢¨ Â þÕ¾Â §¿¡Â¡Ç¢¸û §Áü¦¸¡ûÇÄ¡õ?

«)§Å¨Ä ì Ì Ó ý ÁüÚõ À¢ý É¡ø

¬)º¡ôÀ¢ð¼ À¢ý Ò

þ)þÃ× º¡ôÀ¢ð¼ À¢ý Ò

®)¸¡¨Ä ¯½ × ì Ì À¢ý Ò

23.¸¡ú¸ ñ ¼ÅüÈ¢ø ±¨¾ þÕ¾Â §¿¡Â¡Ç¢¸û ¨¸Å¢¼§Å ñ Î õ?

«)µ Î ÅÐ

¬)¦¾¡¼÷îº¢Â¡É ¯¼üÀÂ¢üº¢ ¿¢¨Ä

þ)Ó¨ ÈÂüÈ ¯¼üÀÂ¢üº¢ ¿¢¨Ä

24.þÕ¾Â §¿¡Â¡Ç¢¸ Ù ì Ì ¸ ñ ÊôÀ¡¸ µö× ± Î ì¸ §Å ñ Î õ?

«)¯½ × ì Ì À¢ý Ò

¬)¯¼üÀÂ¢üº¢ì Ì À¢ý Ò

þ)þÃ× ¯½ × ì Ì À¢ý Ò

25.þÕ¾Â À¢Ãîº¨ É ¦À¡ÐÅ¡¸

«) « ¾¢¸ §Å¨Ä ¦ºöÀÅ÷¸û

¬)§Å¨Ä ¦ºöÂ¡¾ ¯¼ø ÀÕÁý ¯ûÇÅ÷¸û

þ)²ú¨Á ¿¢¨Ä

26. ¸ØûÇ ¿¨¼Ó¨È¸û ãÄõ ÁÉ «Øò¾õ ÁüÚõ ÁÉîº¡÷¨Å Ì¨Èì¸Ä¡õ

«)þ¨º¨Â§¸ðÀÐ

¬)ÁÕó¨¾¯ð¦¸¡ûÅÐ

þ)ÁÐ «ÕóÐÅÐ

®)Ò¨¸À¢ÊôÀÐ

27. þ¨¾§¿¡Â¡Ç¢¸û þ¨¾¾Å¢÷ì¸§Å ñ Îõ?

«)ÁÉ «Øò¾õ §Å¨Ä¨Â Ì¨ÈôÀ¾üÌ

¬)ºó§¾¡„ò¨¾¯ÕÅ¡ì Ì ÅÐ

þ)¯üº¡¸ò¨¾§ÁõÀ Î òÐÅÐ

®)«¨Á¾¢Â¡É Ýú¿¢¨Ä¯ÕÅ¡ì Ì ÅÐ

À¢¡¢×-®

§¿¡Â¡Ç¢¸Ç¢ý ÀÆì¸ò¨¾ÀüÈ¢Â ¬ö×

28. þÕ¾Â §¿¡Â¡Ç¢¸û ±ó¾ ÀÆì¸ò¨¾¾¨¼ ¦ºöÂ §Å ñ Îõ?

«)Ò¨¸Â¢¨Ä ÁüÚõ Ò¨¸ô À¢ÊôÀÐ

¬)þ¨º¨Âì §¸ðÀÐ

þ)Àò¾¢¡ì¨¸ ÀÊôÀÐ

®)Å¢¨ÇÂ¡ð Î

29. þÕ¾Â §¿¡Â¡Ç¢¸û ÁÐ «Õó¾¯ð¦¸¡ûÅÐ?

«)«¾¢¸Á¡¸ ÁÐ «ÕóÐÅÐ

¬)ÓüÈ¢ÖÁ¡¸ ¿¢ÚòÐõ ¿¢¨Ä

þ)±ô¦À¡Ø¾¡ÅÐ ÁÐ «ÕóÐÅÐ

®)Ì Êì¸Ä¡õ

30.ÁÐ «ÕóÐÅ¾ý ÀÄý ±ý É?

«)þÕ¾Â §¿¡Âýý «È Ì È ¨ Â Ì ¨ ÈôÀÐ

¬)±öðŠ §¿¡¨Â Ì ¨ ÈôÀ¾ü Ì

þ)¸÷ôÀô¨À ÒüÚ§¿¡¨Â Ì ¨ ÈôÀ¾ü Ì

®)ÅÂüÚôÒ ñ Ì ¨ ÈôÀ¾ü Ì

31.±ó¾ Å¨¸Â¡É ¬ø¸†¡ø ¯ð¦¸¡û ÙÅ¨¾ ¾Å÷ì¸ §Å ñ Î õ?

«)´Âý

¬)À÷

þ)ÅŠ¸

®)ÀÆîº¡Ú

32.±ùÅÇ× ¬ø¸†¡ø ¿ÁÐ ¯¼õÀüÌ À¡Ð¸¡ôÀ¡ÉÐ?

«)´Õ ¾¼¨Å

¬)3 ¾¼¨Å/1¿¡û

þ)2¾¼¨Å/1¿¡û

®)1¾¼¨Å/1¿¡û

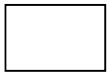
33.þÕ¾Â §¿¡Â¡Çý û ÁüÚõ Ò¨¸ôÀÊì Ì õ ÀÆì¸õ ¯ûÇÅ÷¸û

«)ÓüÚÁ¡¸Ò¨¸ ÀÊôÀ¨¾ ¿ÚòÐÅÐ

¬)¾ü¸¡Äý¸Á¡¸ ¿ÚòÐÅÐ

þ)±ô¦À¡Ø¾¡ÅÐ Ò¨¸ ÀÊôÀÐ

34.Ò ¨ ¸ôÀ¢ÊôÀ ¨ ¾ ¿¢ÚòÐÅ¾¡ø ²üÀ¼ì ÜÊÂ ÀÄ í ¸ û ± ý É?



«) ¬ Ôð ¸¡Äò ¨ ¾ ¿¦ðÊôÀÐ

¬) þÕ¾Â §¿¡ ¨ Â ¾ Î ôÀ¾ü Ì

þ) þÕ¾Â §¿¡ö ²üÀ¼ì ÜÊÂ ¸¡Ã½¢¸ ¨ Ç ¾ Î ôÀ¾ü Ì

®)Å¡º ¨ É ÁüÚõ Ñ¸÷× ¯ ½÷îº¢ ¨ Â «¾¢¸ôÀ Î òÐÅÐ

¯)§ÁüÜÈ¢Â « ¨ É òÐõ

APPENDIX VIII

SCORE KEY

Item no.	Correct response	Score
1.	A	1
2.	A	1
3.	D	1
4.	B	1
5.	C	1
6.	D	1
7.	D	1
8.	A	1
9.	A	1
10.	C	1
11.	C	1
12.	D	1
13.	D	1
14.	F	1
15.	A	1
16.	B	1
17.	B	1
18.	B	1
19.	C	1
20.	A	1
21.	A	1
22.	A	1
23.	C	1
24.	C	1
25.	B	1
26.	A	1
27.	A	1
28.	A	1
29.	A	1
30.	A	1
31.	C	1
32.	A	1
33.	A	1
34.	E	1

SCORING PATTERN

Each Correct answer score	-	1 Mark
Each Wrong answer score	-	0 Mark
Minimum Score	-	34 Mark

INFERENCE WILL BE DRAWN BELOW

Inadequate knowledge level	=	<50%
Moderately adequate knowledge level	=	50%-75%
Well adequate knowledge level	=	75%

APPENDIX IX

CRITERION CHECKLIST FOR VALIDATING THE TOOL

Dear Sir/Madam,

Kindly go through the content and place right mark (✓) against questionnaire in the following columns ranging from relevant to not relevant. If the items need to be modified, please give your valuable opinion in the remarks column.

Section-A: Demographic Data:

SI. No	Items	Relevant	Needs Modification	Not Relevant	Remarks
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					

SECTION-B

SELF ADMINISTERED QUESTIONNAIRE TOASSESS THE KNOWLEDGE ON LIFE STYLE MODIFICATION AMONG CARDIAC PATIENTS FOR MAINTAINING HEALTHY HEART

SI. No	Items	Relevant	Needs Modification	Not Relevant	Remarks
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					

Sl. No	Items	Relevant	Needs Modification	Not Relevant	Remarks
24.					
25.					
26.					
27.					
28.					
29.					
30.					
31.					
32.					
33.					
34.					

Healthy diet is important to maintain health for heart patients.

- Add more fiber to your diet (25 to 30 grams per day) by eating raw vegetables and fruits, whole grains and beans.
- Consume lean meats and poultry and remove the skin.
- Consume less than 6 grams of salt per day.
- Cut back on foods containing partially hydrogenated vegetable oils or "trans fats," such as hard margarine and shortening, and most baked goods.
- Use better Olive oil, canola oil, flaxseed oil, etc.
- Eat at least two servings of fish per week.
- Limit alcohol consumption to one drink per day for women and two drinks for men
- Stop smoking..
- Eat more vegitable and fruits.

- Vegitables are cabbage, pumpkin, carrot, cauliflower, green beans, spinach,tomato etc.
- Fruits are orange, papaya,cherries, staw berries, apple, pin apple, mango, grapes,banana, water melon. Etc.
- High fiber and low salt diet helps to prevent constipation and maintain blood pressure.
- Eat some grain foods.
- Eat some legumes , sea food, egg,poultry &meat,
- Eat some oily foods, eg,tuna, kingh fish, salman.
- Eat some milk yogurt, fat reduced heese, nut, seeds etc.
- Switch from whole-fat to low-fat or non-fat dairy products.
- Limit intake of sweetened beverages.

Monitor Your Health

- Blood pressure
- Blood sugar levels
- Manage diabeti melatus.
- limit alchohol, and avoid wisky.
- Weight should be checked weekly or if possible daily.
- Body mass index (BMI)
- Cholesterol levels (Total, HDL, LDL and triglycerides)
- Waist circumference — a man with a waist of more than 40 inches or a woman with a waist of more than 35 inches are considered high-risk.
- Be physically active everyday, redue stress,

Rest and stress

- Adequate sleep at night is important to heart patients.
- Take rest after strenuous work.
- Reduce the stress and emotions levels .
- Avoid tension and agitation.eg, hear music yoga,read magazine etc.

CARDIO VASCULAR DISEAS AND ITS PREVENTION

FOR BENEFICIARY OF SOCIET PROCEEDING

BY

MARTIN DANIEL P

M.Sc., NURSING IInd YEAR.

GUIDED BY,

Asso.Prof.Mrs. Reena.

Sakthi College of Nursing

Oddanchatram

Dindugul Dit,

Tamilnadu

WHAT IS MEAN BY CARDIO VASCULAR DISEASE?

Heart disease is the nation's leading killer,It is generally refers to condition that involve narrowed or blocked blood vessels that can lead to a heart attack,(myocardial infarction) chest pain (angina pectoris) which is affect the heart, arteries& veins.

Know the Risk Factors

The top risk factors for heart disease include:

- Age 65 or older
- Depression
- Diabetes
- Excessive drinking
- Family history of heart disease
- High blood pressure
- High cholesterol
- High stress
- Obesity
- Poor nutrition or dietary habits
- Sedentary lifestyle
- Smoking

Risk Factors You Might Not Know About By gender:

- Males are at greater risk of heart attack than females and they have them earlier in life.
- Though their heart attack risk is lower, women are twice as likely as men to die after a heart attack, partly because they tend to be older when the incident occurs.

By racial or ethnic group:

- African-Americans, particularly females, have a greater risk of developing high blood pressure and cardiovascular disease than Caucasians.
- Indians have the fastest growing incidence of heart disease of any racial or ethnic group in the United States.
- Asian-Americans are at increased risk of heart disease, partly due to higher rates of obesity and diabetes.

Know the Top 5 Heart Attack Warning Signs

- Chest discomfort, such as pain, pressure, squeezing or fullness in the center of your chest, lasting more than a few minutes or going away and then coming back
- Discomfort elsewhere in the upper body, such as in one or both arms, back, neck, jaw or stomach,
- Lightheadedness
- Nausea
- Shortness of breath

Take Control of Your Health

To prevent a heart attack:

- Eat a healthy diet
- Engage in physical activity every day
- Limit alcohol
- Stop smoking.
- Lower blood pressure to less than 120/80 mmHg
- Maintain a healthy weight
- Manage diabetes (diabetics are two to four times m likely than non-diabetics to develop cardiovasc disease)
- Reduce blood cholesterol to less than 200 mg/dL
- Reduce stress. stop smoking.

Modify Your Lifestyle

Life style modification helps to reduce furth heart disease.it is onsists proper diet and regul exercise. exercise should be done either before or aft work.

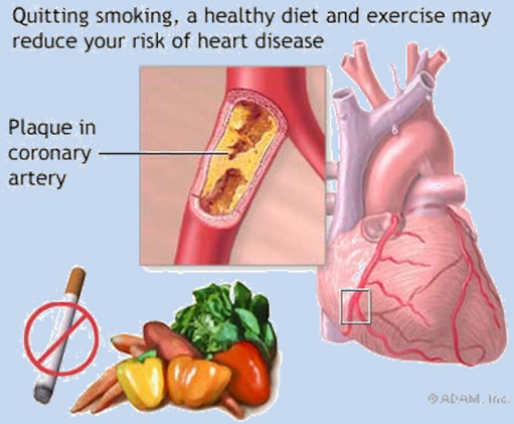
Exercise (Age 18 to 65)

- 30 minutes of moderate-intensity aerobic phys activity, such as brisk walking, five days a week.
- 20 minutes of vigorous aerobic activity, such jogging, three days a week.
- Light exercise as part your daily routine. Take stairs, do yard work or walk around while on phone.
- Swimming,muscle stretching exercise
- Avoid irregular physical activity. Regular phys activity helps to prevent obesity and improve bl circulation.
- Walking,and swimming are weight reducing exer for cardiac patients.weight loss helps to decrease cholesterol level.
- Start to exercise before or after work.

Diet

இருதய நோய் என்றால் என்ன?

இருதய நோய் ஒரு கொல்லும் வியாதி இது வரையறுக்கப்பட்ட இருதயத்திற்கு செல்லும் இரத்த நாளங்களை அடைப்பதால் இந்த நிலை ஏற்படுகிறது. இதயவலியும் அதனால் உண்டாகும் இதய அடைப்பும், இரத்தநாளங்கள், தமனிகள் மற்றும் சிரை பாதிக்கப்படும் ஒரு நிலையே இதய செயலிழப்பு அல்லது இதய நோய் எனப்படும்.



காரணிகள்

- வயது 65 மற்றும் அதற்கும் மேல் உள்ளவர்கள்
- கவலை
- சர்க்கரைநோய்
- மதுப்பழக்கம்
- இரத்தக்கொதிப்பு
- மனச்சோர்வு
- அதிகப்படியான எடை
- சீரற்ற உணவுமுறை
- முறையான உடற்பயிற்சியின்மை
- புகைப்பழக்கம்

நன்றி

வருமுன் காப்பதே சிறந்தது

இதய நோயும் இதய நோயை தடுக்கும்முறைகள்

சமூக நலன் கருதி வெளியிடுவோர்

மார்ட்டின் டேனியல்,

முதுகலை இரண்டாம் ஆண்டு

வழி நடத்துபவர்

பேராசிரியை திருமதி ரீனா

சக்தி செவிலியர் கல்லூரி,

ஒட்டன்சத்திரம்,

திண்டுக்கல்மாவட்டம்,

தமிழ்நாடு

இதய நோயின் அறிகுறிகள்;-

- படபடப்பு, தலைவலி, இதயவலி ஒரு நிமிடத்திற்கு மேல் நீடிப்பது.
- வலி,தோள்பட்டை, இரண்டு கைகள், முதுகு, கழுத்துபகுதி, வயிறு பகுதிகளுக்கு பரவுதல்
- மயக்கம்,வாந்தி சுவாசமின்மை, மூச்சு திணறல்.

அதிகப்பாதிக்கப்படுபவர்கள்:-

- ❖ விகிதச்சாரத்தில் பெண்களை விட ஆண்கள் அதிகம் சதவீதம் பாதிக்கப் படுகிறார்கள்.
- ❖ ஆப்பிரிக்க அமெரிக்கப்பெண்கள் அதிக சதவீதம் ஆண்களைவிட அதிகம் பாதிக்கப்படுகிறார்கள்.
- ❖ ஆசியர்கள் மற்றும் அமெரிக்கர்கள் அதிகம் இதயநோயால் பாதிக்கப் படுகிறார்கள்.

இருதய நோய் வராமல் தடுக்கும் முறைகள்:-

- சத்தான உணவு உட்கொள்ளுதல்
- உடற்பயிற்சி
- மதுவை கைவிடுவது
- புகைப்பிடிப்பதை நிறுத்துவது
- இரத்த அழுத்தத்தை கட்டுக்குள் வைப்பது
- எடையே சீராக வைப்பது.

உணவு முறை:-

- தினமும் ஒரு முட்டை 225ல்300மில்லி கிராம் கொழுப்பு
- நார்சத்து உணவுப்பொருட்கள்
- தோல் நீக்கப்பட்ட கோழி
- தினமும் 6கிராமுக்கு குறைவாக உப்பு சேர்த்துக்கொள்ளுதல்
- ஆலிவ் எண்ணெய் மற்றும் தாவர எண்ணெய் சேர்த்துக்கொள்ளுதல்
- மீன் சேர்த்துக்கொள்வது
- காய்கறிகளை அதிகமாக உட்கொள்ளவேண்டும்.
- ஆரஞ்சு,பப்பாளி,செர்ரி,ஸ்டராபெர்ரி, ஆப்பிள், அன்னாசிபழம், மாம்பழம், திராட்சை, வாழைப்பழம், தர்பூசணி, அதிக நார்சத்து மற்றும் குறைவான உப்புசேர்த்துக்கொள்வதால் மலச்சிக்கல் மற்றும் இரத்த அழுத்தத்தை குறைக்கலாம்.
- காய்கறிகள்முட்டைகோஸ்,பூசணிக்காய் கேரட், காலிபிளவர், பச்சைப்பட்டாணி பசலிக்கீரை, தக்காளி.
- ஆல்கஹால் தினமும் ஒரு பெ அளவு பெண்களும், இரண்டு பெ ஆண்களும் எடுத்துக்கொள்ளலாம்.

உடல் நிலை பரிசோதனை

- இரத்த அழுத்தம்
- சர்க்கரை அளவை சோதித்தல்
- எடையை பரிசோதித்தல்

ஒய்வு மற்றும் மனச்சோர்விலிருந்து விலகுதல்

- இரவு உறக்கத்தை தவிர்க்ககூடாது
- கண்டிப்பாக ஒய்வு எடுக்கவேண்டும்
- மனச்சோர்விலிருந்து முற்றிலும விடுபடவேண்டும்.
- எடுத்துக்காட்டு இசை மற்று பொழுதுபோக்கு அம்சங்கள்
- வேலைப்பளுவுக்குப் பிற கண்டிப்பாக ஒய்வு எடுத்தல்.
- கொட்டைகள், கொழுப்பு நீக்கப்பட பாலாடை
- கார்பனேட் பானங்களை குறைத்து கொள்வது.

PHOTO GRAPH

APPENDIX X


NOTICE
ICU-5